



# Rock Products

DEVOTED TO THE PRODUCTION  
OF ROCK AND ITS PRODUCTS

Vol. V. No. 1.

LOUISVILLE, KY., DECEMBER 5, 1905.

STONE EDITION.

QUOTATIONS ON COVER SPACE SENT ON APPLICATION.

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MARBLE**

For Building, Decorative, Monumental Purposes.

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QUARRY EQUIPMENT OF ALL KINDS.

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SEE ADV. PAGE 9

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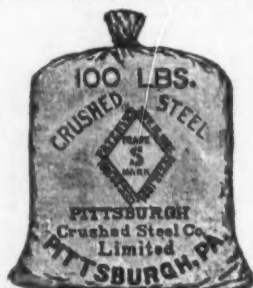
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# Rock Products

DEVOTED TO THE PRODUCTION  
OF ROCK AND ITS PRODUCTS <sup>5/0</sup><sub>19</sub>

Vol. V. No. 1.

LOUISVILLE, KY., DECEMBER 5, 1905.

STONE EDITION.

## WORKS OF ART DEMOLISHED

**Beautiful Angelic Statues Destroyed by  
Sculptor to Avert Discussion  
Regarding Sex.**

Work on the Cathedral of St. John the Divine on Morningside Heights New York City, is steadily progressing, although much of the heavy construction going on is not visible behind the great arch that dominates the bluff. The Belmont Chapel was to have been consecrated this month by Bishop Potter, and it is expected that the interior will be fully completed as regards the statuary that is to adorn it, but it is more likely that it will not be ready until Easter.

There are to be four hundred figures in this chapel cut from Frontenac stone, on which more than twenty stone carvers have been steadily working. As there are six other chapels—the seven together being called "The Chapels of the Tongues," in which services will be held in as many different languages—and the plan of ornamentation is about the same in each, some idea can be formed of the immense amount of work in prospect for the sculptor, not to speak of the stupendous mass of ornamental stone that is to go into the big cathedral proper.

The sculptor in charge of the entire work of ornamentation is Mr. Gutron Borglum, who has his studios at 166 E. Thirty-eighth Street. Altogether there will be five thousand figures in the whole building, and although Mr. Borglum can model but a small part of them, still he will have the satisfaction of knowing that his work will set the standard for the work that will be carried on by another generation.

The work has gone on steadily without any drawbacks except the recent annoying one of the objection to the sex of the two angels of the Annunciation and the Resurrection. They were each 9 feet high, carved out of Frontenac stone, and had places in canopies on either side of the large window of the chapel.

They were beautiful and had received the reverent admiration of every one who had seen them, until some nameless unknown one among a number of visiting clergymen early in the month made

the discovery, astounding indeed to a small mind, that they were female angels, and followed it by challenging the propriety of their existence, as the conventional orthodox angel is male only.

His contention got outside of the convention and was taken up by the public, which quickly gave a humorous side to it, holding generally that "lady" angels had no existence, and that the two so sculp-

tured had no right there. The question was also debated in serious lines by serious minded people, the Scriptures and various sacred writings being drawn upon to support one side or the other. Viewing it in a purely numerical light the opponents of femininity in angels were the stronger; but those who had seen the figures, barring perhaps the original objector, felt that they were so beautiful that they should have remained where they were, as the precedent for female angels, even if they had never existed before.

The Cathedral authorities were kind and sympathetic, with Mr. Borglum about it, but on the other hand they were rather forced to take official notice of the criticisms of their own clergymen, and the sculptor saw clearly that the controversy would in all probability never die out, but would be perennial with the existence of the statues.

It is a pity that he had a not less sensitive nature which would have enabled him to ignore it all, but he had not; and it proved so annoying to him that he settled the whole controversy by destroying the two figures. Six months of loving, reverent work was obliterated in as many minutes, and all that remains of the two exquisite creations is the hand, holding the lily, of the Angel of the Resurrection, and the face of the Angel of the Annunciation.

Just what the sculptor will now do is not known. The current idea is that he will remodel the figures, endeavoring to hit on a compromise as to sex, but such a conventional hum-drum action will hardly agree with his high spirited disposition and elevated conception of his task. Undoubtedly he will not again invite the criticism of the dilettantes from way back by such a course, for, no matter how the angels are modeled that question will come to the front again now that public attention has been so pointedly directed to it.

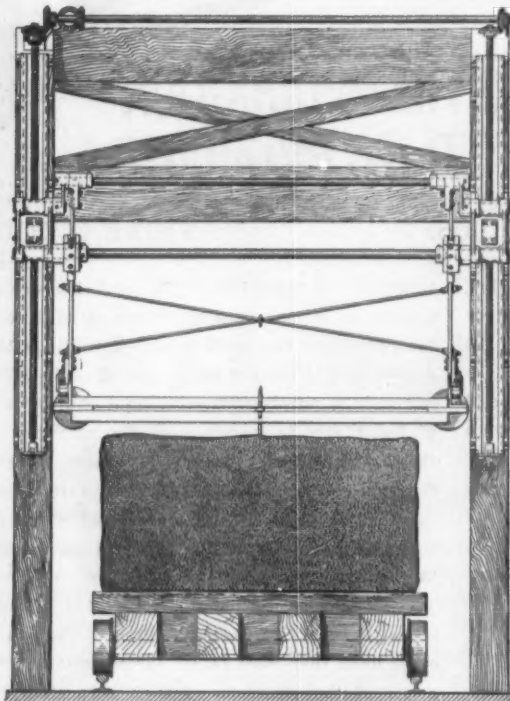
Most probably it will result in a radical alteration of the entire conception and scheme of decoration on his part. At all events it is an interesting question of how far the high artistic work pertaining to so great an undertaking should be subject to the criticism of transient visitors.

The picture represents the plaster cast of the Angel of the Resurrection almost stripped of its plaster mould, preparatory to being turned over to the carvers who cut it into stone. The face of the other angel was less mature and was girlish and more beautiful than this one.



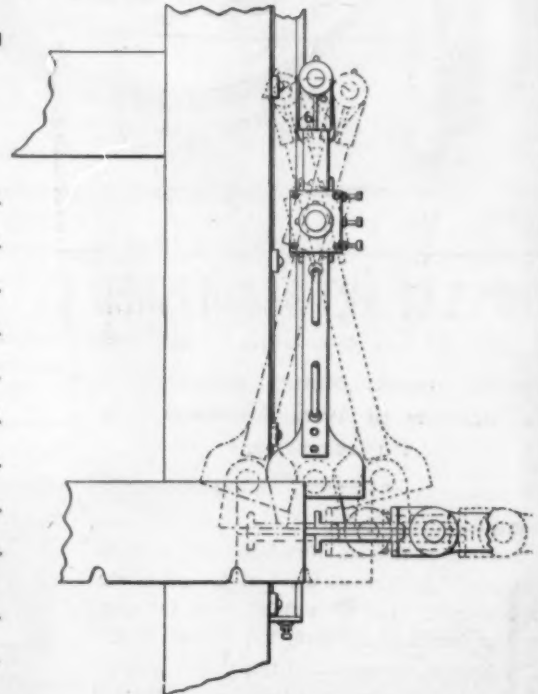
ONE OF THE DEMOLISHED STATUES.

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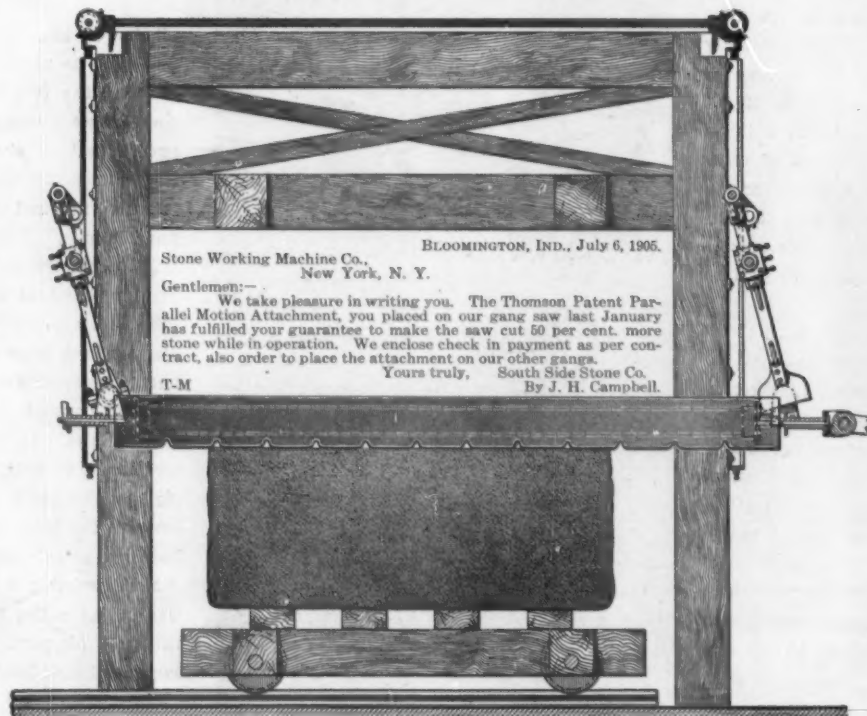
Gentlemen—In reply to  
yours of recent date, would  
say that we had such confidence  
in the Thomson Attachment  
for stone saws that we put  
in the first two manufactured,  
and, pleased to say, that our  
judgment has been more than  
justified. We are confident  
there is nothing on the market  
equal to them. In over two  
years use the cost of repairs  
has been practically nothing,  
and they continue to give every  
satisfaction. You can use this  
letter if it helps you in your  
sales. Yours truly,

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Stone Working Machine Co.,  
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Gentlemen—In reply to your  
letter of even date, we would  
say that we have now been  
using two of your attachments  
on our saws for several months  
and we consider them a de-  
cided improvement.

Yours truly,  
B. A. & G. N. WILLIAMS,  
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Stone Working Machine Co.,  
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stone while in operation. We enclose check in payment as per con-  
tract, also order to place the attachment on our other gangs.  
Yours truly, South Side Stone Co.  
By J. H. Campbell.

T-M

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say that we have had two of  
your parallel saw attachments  
working for the past five  
months, and are satisfied with  
the results obtained. We con-  
sider it a great improvement  
in stone sawing.

Yours very truly,  
J. J. SPURR & SONS,  
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Gentlemen—Yours of the  
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ply would say saw is working  
satisfactorily and doing all you  
claim for it. Please alter our  
other gang-saw as soon as pos-  
sible.

Enclosed find check as per  
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but little more power.

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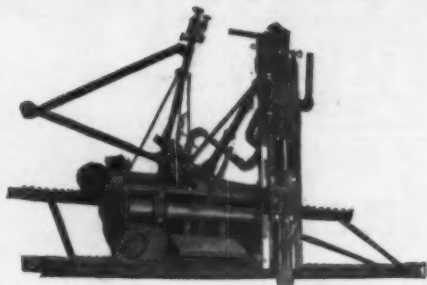
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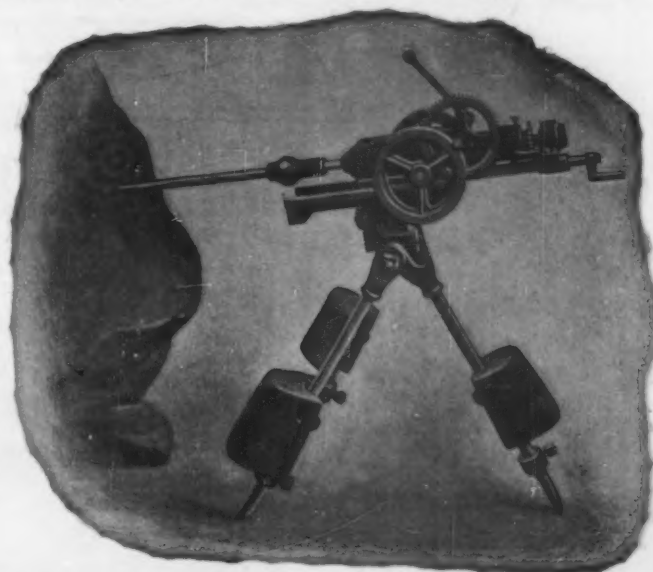
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Weight - 1900 lbs.  
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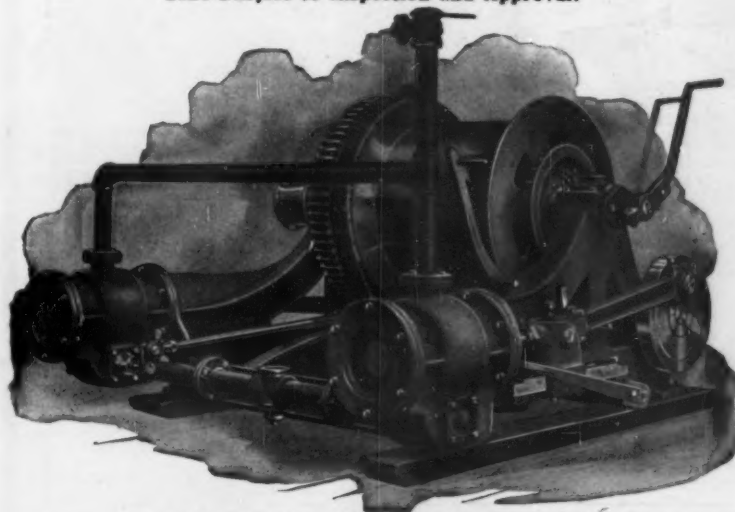


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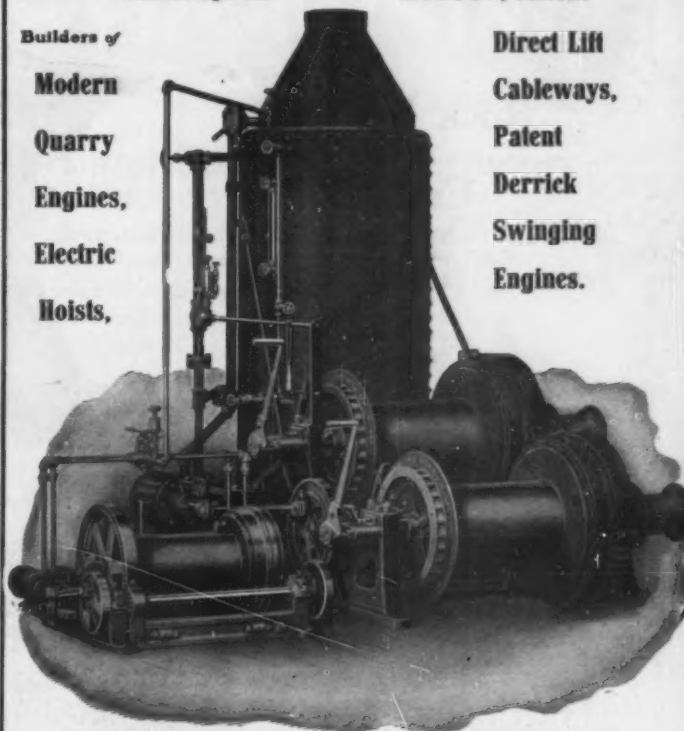
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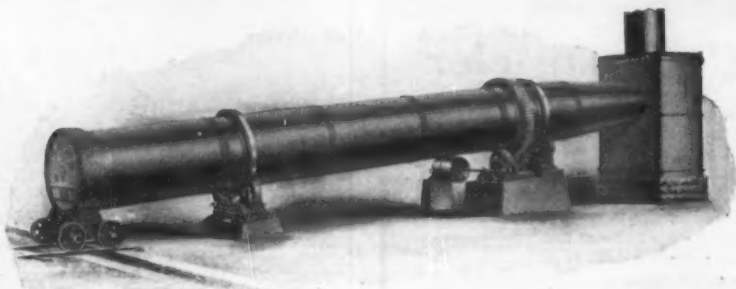
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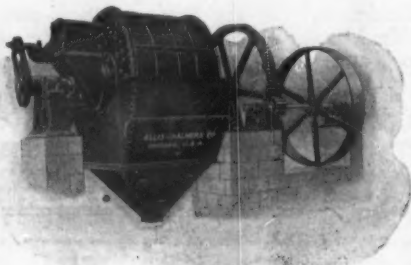
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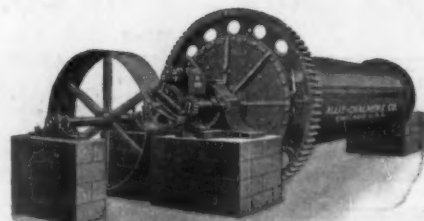


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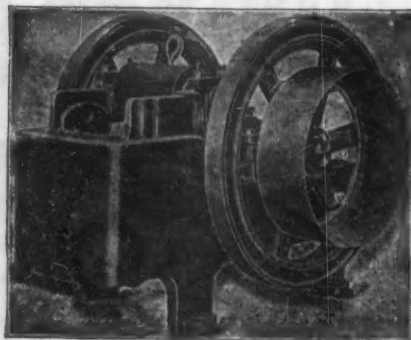
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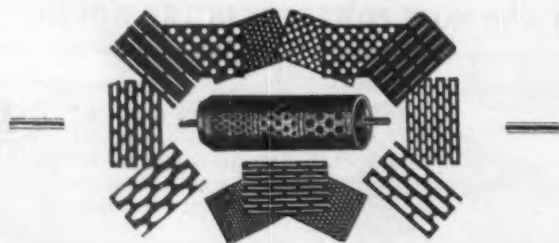
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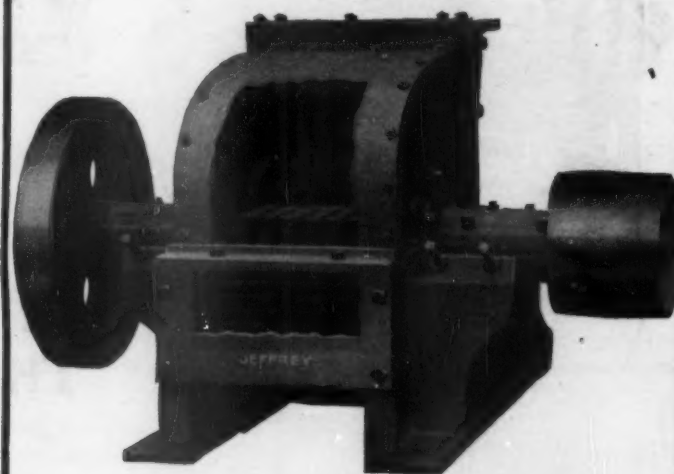
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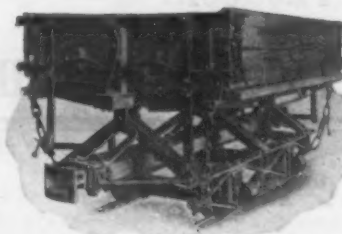
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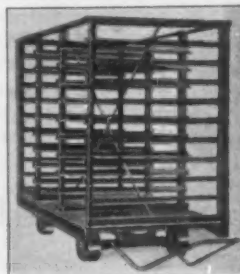
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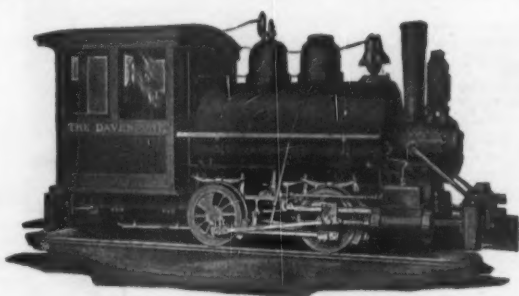
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Publishers.

E. H. DEFEBBAUGH, President

A semi-monthly trade journal devoted to the interests of the manufacturers and dealers in rock products and kindred lines, including Lime, Cement, Salt, Sand, Slate, Granite, Marble, Sandstone, Grindstones, Artificial Stone, Emery Stone, Quarries, Monuments, Manganese, Asphalt, Phosphates, Plaster, Terra Cotta, Roofing and Roofing Tile, Coal, Oil, Mineral Wool, Brick, etc.

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Regular Staff Correspondents in the Principal Centers.

The mission of ROCK PRODUCTS is to serve the trade in any and every honorable way possible, to promote better profits and make life more pleasant for those engaged in the business to which it caters. With this end in view, criticism is courted, and all are invited to use its columns to further ideas and suggestions for the good of the trade. The office, too, is at the service of the constituents of this paper; so when you want to buy or sell, or merely ask a question, write, and when you are in town, call and make it your headquarters.

"TELL 'EM YOU SAW IT IN ROCK PRODUCTS."

Matter for publication to insure insertion in any given number must reach this office at least ten days preceding the date of the paper. This measure is made necessary by the rapid growth of circulation, taking more time in the printing department.

SUBSCRIPTION RATES, \$2.00 per annum, postpaid anywhere in the United States, Canada or Mexico; \$3.00 elsewhere in the Postal Union. Single copies, 10 cents.

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LOUISVILLE, KY. DEC. 5, 1905.

### Semi-Monthly.

PROGRESSIVE newspaper action has been the key note in the life of ROCK PRODUCTS, and a reason for changing the paper to semi-monthly. Our readers have grown in number in every State in the Union, Canada, and a number of foreign countries; and, it is their demand that has particularly influenced this move. We hope by giving you the paper oftener, to accommodate the amount of necessary news for all branches of the business, and, at the same time, place it in your hands in convenient form and before it gets stale.

ROCK PRODUCTS has personally covered all sections in the stone industry by its editorial staff, and has endeavored by pen and camera to enlighten the world as to the inexhaustible resources of building and monumental material in stone and kindred products, and it will be our constant aim to increase this service as well as to intelligently inform the manufacturer, dealer, contractor and architect of the beauty, the solidity and adaptability of American stone, to influence its being quarried and manufactured in larger quantities at profitable prices, and to promulgate intelligent, friendly intercourse through the proper channels in all branches of the business, and thus add to the possibilities of the operator to advocate the greater influence of modern mechanical appliances and improved methods for the general good of the trade.

We appreciate most heartily the friendly interest of those engaged in all branches of the stone business in ROCK PRODUCTS, and its success, which has been phenomenal; and we trust to make it

permanent by consistent, conscientious effort to retain this regard, and to extend our field of usefulness by making a still greater publication, and one of inestimable value to every individual connected with the industry.

The new classification provides for covering the quarry interests particularly in the first issue of the month, followed by the second number containing the story of the manufacturer and dealer, enables us better to carry out our plans to the further interests of all connected with the stone business.

In the publication of two issues each month we desire to assure all branches of the stone business, from the quarryman of blocks to the road contractor who buys crushed stone, including all the channels in which building and monumental stone are handled, that every department will be given the personal acquaintance with the possibilities and the needs of the business in order to influence better conditions.

The editorial policy of this paper will continue to be independent of any interests or individual, and you can absolutely depend on an honest effort to aid your cause with prejudice toward none and fairness to all. In other words we are in the business to make our livelihood out of a trade paper in your line of business, not by illegitimacy or fake transactions, but by honest effort, and we hope to gain your continued good will by conducting the best paper in the business upon these principles.

THE reports that come from the quarry districts which supply the cut stone contractors with building stock indicate that they have enjoyed a very prosperous year. The limestone quarries of Indiana, the sandstone quarries of Ohio, the marble quarries of New York, Vermont and Georgia, as well as the great granite centers of the East and the West have no stock left over uncalled for, and the cut stone contractor is not loaded up with an accumulation of stock. True it is that most of the contractors have provided enough stock of such assortments as are required to complete the jobs they have on hand in the cutting sheds for winter work, but dimension stone of all classes will be in great demand next spring before it is possible for the quarries to get out a supply.

READY-TO-PUT-ON plaster in the shape of a board made of paper with a plaster filler in thin layers has made a decided gain in popularity with the modern construction as developed in the past season, largely eliminating the old wooden lath. The wood pulp or fiber plasters have more than held their own in every case where the well prepared specimen has been used. There are a number of wood pulp or fibre filled plasters that have not proven satisfactory in practice, but this should not and does not detract in any large measure from those that are made upon a well balanced and well tested formula. Some of the richest effects of the modern designer have been produced in this way, and with the growing popularity of classic decoration for interiors, it is certain that the great field that is now opening up for these materials will continue to grow.

THE granite quarryman figures that one-third of the granite quarried goes into waste in the shape of worthless spalls. Now the man who will provide a plan to profitably work up granite spalls will make a great fortune for himself and contribute largely to the profits of a large number of the quarrying operations of the country. Of course it is out of order at this time for any one to suggest the crushing of granite spalls and shipping same for use as ballast or road construction, as such disposal of the material is now carried on

to the limit of profitable operation. It is only possible to ship crushed granite for short distances, on account of the enormous tonnage and the high rate of freight. Perhaps the solution will come in the shape of a cheaper method of transportation than by rail, for the intrinsic weight of the material contributes to its value in no small degree.

AMERICAN marbles are beginning to be exported for interior finish in the construction of important building abroad. The splendid interior effects that have been worked out by the American architect and artisan by the selection and combination of the various marbles found in our quarries, surpass anything of the kind that the old world has ever known and such varieties as the American quarries offer are not to be had elsewhere. The importation of Italian marble, which was a great industry fifty years ago, has almost disappeared and the product of the American quarries has taken its place. Of course finished statuary from the Italian chisel is still brought into this country to a great extent, but in this it is the art value and not the material value that contributes the greater percentage. However, this is not due to any lack of American artists, for many of them have taken the best that has been developed in Europe as their starting point, and have gone further to develop a more exalted "school" of their own. American art in stone is now recognized the year around.

SAND-LIME brick for the purpose of veneering walls has been built into a number of attractive structures, and taking a comprehensive glance at the field, it is safe to say that there has been a wholesome gain in the introduction of this splendid material for such uses. Indeed, in such localities where it is hard to produce clay brick, the seconds or lower grades of sand-lime brick can be employed just as cheaply as the older known materials, and by every test we have come to know that they are superior to every kind of clay building brick.

Some of the colors which have been produced are delicately tasteful, particularly is this true of the green and pink tints, but the whitish gray, which is the natural color of the sand-lime brick where our bank sands are employed in its manufacture, still stands at the head of the list for face brick purposes.

It has taken some time to introduce sand-lime brick to American builders, for the reason that the field was already occupied by the very high grades of clay brick, and builders at first considered the use of sand-lime brick as more or less of an innovation or experiment. This has gradually worn away to a minimum and there are more creditable structures that specify sand-lime brick veneering for the coming season than ever before.

This should be some encouragement to the manufacturers who have spent a great deal of money and energy in introducing the new material, and it is gratifying for ROCK PRODUCTS as the original promoter to know its constant wider acceptance. The prices that were quoted on sand-lime brick at first have been modified to a considerable extent, and with a better knowledge of the material, its cost of production and the uses to which it has been so successfully employed it has earned its place as a standard building material.

THE slate operators throughout the country report the demand for their output as having made a decided advance in the year just closing. Its uses are also being increased as time goes on, and this gives encouragement to the growing number of producers. The one drawback has been, however, the ill-advised policy of price cutting.



## From Our Own Correspondents.

### GREATER NEW YORK.

NEW YORK, N. Y., November 27.—The quiet that has existed during the year in the building trade is threatened by the strike of the house-smiths against Post & McCord. They have refused to arbitrate the strike, which refusal puts them in violation of the arbitration agreement. The original strike is against the American Bridge Co. for the employment of some twenty-five non-union laborers, and it has been extended to Post & McCord in this city on the ground that they are a part of the American Bridge Co. The house-smiths were warned that by virtue of the terms of the general arbitration agreement the employers had the right to fill their places with non-union men, and on the 27th they resolved to open an agency the next week for either union or non-union house-smiths, and if any of the other unions will not work with the new men then the same action will be taken against them. The Employers' Association announces its determination to stand by Post & McCord, no matter how long the difficulty may last. Whether the remaining unions will work with non-union men or not is a matter that at present can only be speculated upon.

The bricklayers are generally standing sturdily by their agreement with their bosses, and in defiance of the orders of their International Union, to refuse to work a fireproofing brick for any subcontractor, even if he paid union wages. They have accordingly called strikes on several buildings, and a number of others will be declared by the 1st of December. One local union, No. 37, however, refused to obey the strike order and remained at work, as the officers of their union had decided to obey the decree of the International Union.

The Government has stopped the blasting work on the reef off Pier A, North river, as floating ice will make it dangerous for the divers. The blasting has been about one-quarter done, but no stone is yet removed.

#### The National Secretary Makes an Address.

The Granite Manufacturers and Dealers' Association of New York and vicinity held a regular monthly meeting at the Rosemore Hotel, on the evening of November 21. There was a full attendance, and great interest was shown in the visit of Mr. W. A. Alexander, the secretary of the National Association, who came on from Boston to address the meeting. He made a very interesting address, in which he explained the objects of the National Association, and their mode of handling matters that came before them, and he enlarged upon the point that the policy of the association was always that of peace and harmony. The old board of officers was elected for the ensuing year, and the general feeling of the members was one of satisfaction with the course of events for the past year. Mr. Mutch, of Barre, and Mr. Mitchel, of Quincy, were present at the meeting.

#### Limestone Scarcer and Higher Next Spring.

Mr. F. S. Dickinson, Eastern representative of the Bedford Quarries Co., has returned to his office in the Flatiron Building after a tour through Indiana and Ohio, to his own and other limestone quarries. He reports that all the indications are that stone will be scarce and higher next spring. Every quarry is chock full of orders, more than sufficient to carry them well past the winter season. Block stones are very scarce, and practically no orders for that kind of stock are entertained at all. All of the quarries are improving their plants; and his own quarries have put in big additions in all forms of machinery, the Ohio one having practically doubled its facilities. There is one big trouble which they as well as the others have to contend with, namely, the difficulty of getting enough good men. This stringency has made itself felt this fall very strongly, and will have a very decided influence on the spring supply of stone.

#### Limestone for the Messiah Home.

The Perry-Matthews-Buskirk Stone Co., Flatiron Building, reported business to be very good. The entire year had been very satisfactory, and the outlook for the spring was very promising. They have plenty of work at the quarries, with orders booked well ahead. They have just closed the contract for the Messiah Home, of which Chas. Brigham, of Boston, is the architect, and Carr & Ball, of Newark, are the cut stone contractors. For this building the P. M. B. Co. will supply 20,000 cubic feet of their buff limestone. The shipments are expected to begin to arrive by the first of the new year.

#### Supplying Granite for a Nice Job.

Mr. H. L. Brown, 7 E. Forty-second Street, has secured for the Emerson Troy Granite Co. the contract for the Union Square Savings Bank, which it was thought at first would be of marble. It will call for about 24,000 cubic feet. The building will be 126 x 53 feet and 68 feet high. It will be ornate in style, and with a striking portico and colonnade 10 feet deep and 45 feet wide, with Corinthian columns. The building will be topped by a heavy balustrade. The architect is H. Bacon, 160 Fifth Avenue. The amount of stone for the Sacred Heart Cathedral in Newark is now figured at about 200,000 feet.

#### At the Dedication.

The Harrison Granite Co. is pushing the work on the McKinley National Memorial. They have nearly four courses up, bringing it to the beginning of the main ashlar. About 150 tons of stone have been set, and there is as much more on the ground, and with what is on the way it will make about 500 tons which they hope to have set and completed up to the seventh course during the fore part of December. Mr. Harrison was among the invited guests at the laying of the corner stone, which took place on the 16th.

#### A Gettysburg Monument.

The Hurricane Isle Granite Co. has secured the contract for the State Bank to be erected at Grand and Norfolk Streets. It will be of limestone and of light Waldoboro granite. They have also received the contract for the statue to Maj. Genl. Geo. Sears Grene from the New York Monuments Commission for the battlefields of Gettysburg and Chattanooga. The figure will stand on a base of polished Hurricane Isle granite, and will be erected on Culp's Hill, on the Gettysburg field.

#### Everything Running Smoothly.

I. Gillies & Sons, Long Island City, were very busy. Mr. Gillies was pushing the work on the Carnegie Engineering Building, on which Doyle's limestone is being used and crowding it up against the big Meyer's diamond circular saw, which was taking it all in good style. All hands were at work again as usual.

#### An Obelisk of Westerly Granite.

The Mass Monumental Co., 150 Nassau Street, is now getting out something nice in Newell's blue Westerly granite. It is a monument for the Orange, N. J., cemetery, consisting of an entrance platform 7 feet 10 inches wide and 6 feet 6 inches deep, flanked by winding buttresses carved with palms for their full length, and terminating in corner posts surmounted by two circular urns with a belt of carving encircling them. This leads to the concrete foundation on which will be reared an obelisk 32 feet high, on a 7 foot square base. The four sides of the die will be ornamented with passion flowers. It is from designs by Mr. O. H. Leaman. They are also erecting a very elaborate cross, to serve as a headstone. It is of Westerly granite also, and is heavily carved with Easter lilies in high relief.

#### All By Itself.

Mention was made some time ago of a large monument of Hill o' Fare stone, which the Mass Monumental Co. was to import and erect. It has now been set and Mr. Leaman says it emphasizes the growth of American granite, for it is conspicuous among the white blocks, and as far as the eye can reach its mate is not to be seen, and it looms up red and solitary and alone.

#### Bound to Catch Some Fish.

Messrs. John and Donald Smith, proprietors of the E. L. Smith & Co. Granite Co., of Barre, Vt., were in town towards the close of the month. Together with Col. Cushman, Superintendent of Greenwood Cemetery in Brooklyn, they called on Mr. Albertson, of the New York Granite Co., 1133 Broadway. Mr. Albertson was very glad to meet

them, and took them up to the New York Athletic Club, where they were initiated into all the mysteries and had a very pleasant time. Nevertheless a strict adherence to truth compels the statement that the old cellar out on the farm still reigns supreme. While at the club arrangements were made by all hands for the fishing trip that should have taken place last spring at Lake Mansfield. Some bowling was indulged in, and although Mr. Albertson labors under the delusion that he knows something about that pastime, Dan showed him a new wrinkle or two and came off a good victor.

Mr. Jos. Newell, of J. Newell & Co., Westerly, was a visitor during the month, as well as O. W. Alston, of the Alston Stone Machine Co., Endicott, N. Y.

#### Left on the Outside.

Towards the close of last month, and during the early part of this, a strike was inaugurated over in Greenpoint which spread to some four or five shops. It was on the subject of overtime, and was started by the machine men and their helpers. The stone cutters No. 1 went out, also to assist them in their effort. But pretty soon the stone cutters began finding work here and there in other shops, and after awhile they were all employed, while the machine men were left out on the sidewalk wondering where they came in. It did not take a very long experience of this situation to impress upon the machine men that they ought to get inside also, and soon they were all back at their old jobs again.

#### The Spalls Go into Country Fences.

In a stone yard a laborer was gathering up a barrow of large, sharp, clean spalls, and in response to a query as to what would be done with them, the proprietor said: "For many years I have had a ready outlet for them from the same architect who builds a great many country houses, and uses them to make up ornamental fences and sometimes house walls."

#### Wants Them to Carry More Stock.

A quarry representative here said: "There is another call for stone right away. It is heart-breaking the way the New York yards will let their stock run down, and the small amount they carry anyway. Chicago, though not nearly so important a stone center as New York, carries much more stone. Yards there that can not begin to vie with the New York yards in importance will carry their 40,000 to 60,000 feet always on hand. Nor is it that room is any more plentiful or much cheaper than in New York. It is simply that the New York yards have long followed the habit of carrying small stocks and keep on doing it because it is an old custom."

#### They Don't Gain Anything.

A manufacturer said: "I run across dealers who have a fixed idea that can not be shaken in their minds, that it is better to wait till winter when business is slack at the quarries, and by placing their spring orders then they will get a correspondingly cheaper price. Now, I can say for myself, and from what I know of other manufacturers' ways, that this is a fallacy. All work costs more in winter. Steam condenses quicker and the boilers must make more to supply the loss. Pipes freeze and burst. Everything is moved around slower and with more difficulty. Trucking is harder. Stock can not be quarried out so readily, as the frost is in it and it won't split out as well; the workmen can't begin to do the same day's work, and so on in many more particulars, all of which any manufacturer knows who knows anything at all, and all these increased expenses are charged up to the general foot run of winter's work, and go to counterbalance the supposed cheapness attributable to winter slackness, and leave the prices to the dealer at about the same general figures. And then with regard to prompt delivery they are no better off, because all work is then being pushed with an eye to Decoration Day deliveries, and their work if it is Decoration Day work will just follow along with the rest, while if it is not, it will be subordinated to it, and will be taken up only when the other is out of the way, and so they don't gain anything on that score, either."

#### Stone Crushing Industry is Prosperous.

Mr. F. N. Merrill, representing the Austin Manufacturing Co., 11 Park Row, is just back from a trip devoted mainly to the crusher end of the business. He says the outlook in crushed stone keeps growing bigger and bigger. The different forms of concrete work have much to do with it, espe-

cially the building block and the general municipal construction of sewers, bridges, etc.; but just as great a call for crushed stone comes from the impetus given to that industry by the good roads movement. Of the \$50,000,000.00 voted for that purpose at the last election in New York, some \$10,000,000.00 will be spent this year, and that, together with the projected work on the \$101,000,000.00 canal enlargement, has caused a veritable boom in the crushed stone line all through the State. He found that farmers who had for a lifetime looked at one section of their land as worthless by reason of the big rock outcroppings, now realize that they have something of value and were getting friends in the village to join them in setting up a stone crushing plant. In other cases he found some who were going it alone, fitting up a small crusher and getting the rock out with the farm hands. He found a general demand for rock crushers and for men to run them and whenever a capable man presented himself he was sure of an engagement. In one city that he visited he found that estimates were wanted on six complete plants to be set up within a short radius of the town.

Mr. S. K. Green, manager for Earl C. Bacon, hoisting and crushing machinery, 26 Cortlandt Street, manufacturer of the Farrell rock crusher, said that business in crushers was very great. In fact it was something unprecedented. The demand was coming in from all quarters for all sizes of crushers, and especially for large ones.

Mr. Shaw, of the Clinton Point Stone Co., and Mr. Butler, representing Calvin Tomkins both reported business in crushed stone to be excellent, and that they were having all they could handle.

#### A High Grade Compressor.

The Laidlaw, Dunn, Gordon Co., 114 Liberty St., has sold to the Pigeon Hill Granite Co., of Rockport, Mass., a Cross compound two-stage compressor, having Corliss steam valve gear and Cincinnati air valve gear. Size 13 and 25 by 22 and 14 by 24, with a capacity of 1,000 cubic feet per minute. This is the highest grade compressor that the company makes, and the installation will be up-to-date in every respect, irrespective of cost, nothing being spared to achieve the highest continued running economy.

#### A New Plug Driller.

At H. G. Kotten's office, 120 Liberty Street, Mr. Brown reported that they had just perfected their latest model plug driller, after a great deal of time and labor being spent upon it. He said: "It does the work of two to three of any of our other types or of other makes of machines. It takes less air and produces about three times the power of the old type." Mr. Brown states they will be pleased to send these tools on trial to any of their customers, allowing them to use them a sufficient time in which to convince themselves of their merits.

#### For all Sorts of Purposes.

The American Air Compressor Works, 26 Cortlandt Street, reports business to be very good, the shops being crowded with orders. They are building a large 700-foot compound compressor to go to Sweden. They are shipping one of their new compressors to Bugbee & Alexander, Barre, Vt. They also have installed a second compressor for Albin Netherwood, of Richmond, Va. They are building a compressor for the Washington Barracks, Washington, D. C., for the ejection of sewage, and they have just closed an order for two electrically driven machines with a total capacity of 550 feet to be installed in a large newspaper building.

#### Stone Trade Good on the Coast.

Mr. Berger, of Berger, Carter & Co., of San Francisco, was in town during the close of November. His firm handles the American Air Compressors on the coast, and also carries a full line of machinery and general supplies for the quarrying and stone trade, and also for machine shop purposes. He reports the stone business in all its branches to be very good out there, and all meritorious appliances find a good sale.

#### An Interesting Bulletin of Stone Machines.

The Ingersoll-Rand Co., 11 Broadway, has put out Bulletin No. 2004 of their pneumatic tools. It contains illustrations of each tool, including the Pneumatic Stone Polishing Machine and the Stone Surfacer. Of the valueless stone tools it says: "There is but one moving part to the tool—a hardened piece of steel." It is made in four sizes embracing the most delicate carving up to the heavy

est "roughing out." The Pneumatic Surfacer "is easy on the operator and economical of air. The cost of operation has been found to be less than one cent per minute." The Pneumatic Polisher No. 1 weighs 100 pounds, and is intended for granite polishing. No. 2 weighs 55 pounds, and is for marble, but either polisher may be applied with success to other stones. In operation they consume about 2 1/4 cubic feet of free air per minute, driving a 12-inch polishing wheel. There are some interesting illustrations of the tools in use at the Hueyapam Quarries in Mexico, showing the Mexican workmen in their high crowned, wide-brimmed sombreros.

#### A Cage for the Diamonds.

The members of the Quarrymen's and Cut Stone Men's convention, who journeyed over to Long Island City last winter and visited W. F. Meyer's factory where his Advance diamond circular saws were made, would be agreeably surprised to see his new factory on Vernon Avenue. He has several times the space and facilities of the old building and yet is crowded. He could not get along even in his new place were it not for the fact that he does some of the setting up in the old place, and also uses it as a storehouse and overflow depot for patterns and materials.

Among the different departments on the second floor, where there are the pattern shop, grinding room, forges, etc., is the setting room where the diamonds are set in the teeth. The floor of this room is covered with heavy zinc tightly soldered at the joints and with a flashing of zinc turned up three inches all around the four sides. The room is built out into the main room and the walls are covered with fine mesh wire instead of plaster, thus giving an abundance of light from all sides which is so much needed for that nice work, and affording a protection against the loss of diamonds. If one jumps away the work is not stopped while a search is being made, but the setter keeps right on, and at closing time the walls are brushed down and the floor carefully swept up and any strays are recovered. Mr. Meyers is constantly on the move among those who have his machines listening to their comments and suggestions and availing himself of every useful idea so put forth, and is also steadily at work originating improvements himself, with the result that the machine is being constantly bettered.

#### Some Notable Achievements.

Among the big jobs that the Wood drills, made by The Wood Drill Works, Paterson, N. J., have been used on are: The New York Subway; removing reefs from the Golden Gate, San Francisco; from The Dalles, Columbia river, Oregon; Penobscot Tunnel, connecting Wilkesbarre with Hazleton, Pa.; the Cedar Grove Reservoir and the White River Railroad, Arkansas.

#### A Hose to be Depended Upon.

The Sprague Electric Co., 537 W. Thirty-fourth Street, New York, who issued a folder with illustrations of its interlocking double armored hose which binds the tubing so tightly that when a rupture occurs the steam or air is retained, and the machine will keep on working till a new section is substituted. This, coupled with the absolute freedom from kinking is one of its chief advantages, but in addition to this is its great durability as the inverted sections fit into one another and take all wear and hard usage on themselves which with ordinary single armor falls on the hose. They describe and illustrate it more fully in Bulletin No. 505, which they will send on application.

The Pulsometer Steam Pump Co. has just sent three of their largest pumps to the Dominion Coal Co., Cape Breton, N. S. They are to be used to pump up the water thick with the coal dirt for which they have been tried and have been found to be very successful. Mr. Hopkins said that this coal refuse was sharper and harder than granite quarry sediment and was a much more striking evidence of the great efficiency of the pumps.

#### Helped Out the Ferry Boats.

Yale & Towne's hoisting blocks do many other kinds of work besides hoisting blocks of stone. At the recent fire of the D. L. & W. terminus, the bridges were out of commission, and there would have been no way of docking the boats, but during the night and the early morning hours some Yale & Towne triple hoists were secured and rigged up and the bridges were manipulated, and the boats made their docking all right.

#### CHICAGO, ILL.

CHICAGO, ILL., November 29.—The cost of building material entering into building construction has been higher than in 1904; in fact, higher at this time than for a long time past, but the satisfactory working conditions made it possible to construct buildings, for, in some instances, less money than before. Preparations are being made for the construction of many large buildings. Among them is an addition to the Auditorium Hotel to cost \$2,000,000.00. A new theatre to cost \$500,000.00, six stories high, is to be built the coming season on Michigan Avenue. It will be six stories high, of dressed white marble and green bronze in front, and promises to be one of the most beautiful in the city. Then again a large new hotel to cost about \$1,000,000.00 is to be built on Dearborn St., near Madison, by Mr. Seebree, of the Saratoga.

The contracts for the new \$5,000,000.00 city hall will probably be given out next week. It will be built of Bedford stone and granite, and will furnish a lot of work for the stone, granite and brick men.

Eighteen and twenty story buildings are going up, as never before, and they are filled as soon as finished. Besides buildings of a public nature there are a large number of costly apartment buildings, eight to twelve stories in height, to be built on the residence avenues; two of them on the Lake Shore drive.

#### Among the Stone Men and Dealers.

The stone men and cut stone contractors, although the active season with them is practically brought to a close by the advance of winter and severe cold weather, are happy. Most of the quarries have closed down for the season, but the continued open weather has kept some of them in operation throughout November. The building season, however, continues, and all buildings now under way will be completed regardless of wintry weather. The work of crushing stone will go on indefinitely, no matter what the weather conditions may be.

Henry Struble & Co., cut stone contractors, 293 E. 40th Street, one of the best known men in the trade, says the stone men have enjoyed a season of almost unprecedented success during the season now about at an end. At this yard business for the season is practically closed. All of his stone machines are idle just now. He says the market is very quiet and trade has dropped off considerably. He has laid off his entire force of men, but looks forward to an active business next spring, when the building season opens. His yard is fully equipped with stone machinery, and has ample facilities for turning out a large amount of work. He has filled several large and important contracts during the season just closed.

Olsen & Nelson, cut stone contractors, 3335-37 LaSalle Street, have had a busy and satisfactory season. They have carried to completion several important building contracts, and say the business of the year has been entirely satisfactory. Among the buildings for which they secured contracts are the post-office at Norfolk, Neb., Augustina Hospital, Chicago, and the Chicago Orphans' Home. They have furnished stone material for a large number of apartment buildings built the past summer in many divisions of the city. The firm is abundantly satisfied with their year's business. At their yards the firm is still working a full force of hands and will continue to do so during the greater part of the winter. They buy all their stone at the quarries, and work Bedford stone entirely.

A. F. Gibson & Co., 3327 LaSalle Street, have been in the cut stone business for over twenty-two years, and have been very successful. They have occupied their present location twenty-one years. They have the stone contract for the new building to be built by the Y. M. C. A., and have contracts for stone for some ten or twelve apartment buildings and flats. The yards are never idle, and during the cold weather their men are housed and kept warm by the use of steam heat. The firm buys all the stone from the Indiana quarries. Mr. Gibson says the season has been full of business and the cut stone trade has generally been in a most prosperous condition throughout the season, with good prospects ahead for still greater activity next year.

John Tait, cut stone contractor, 340 LaSalle Street, deals entirely in cut stone, and buys his supplies from the Indiana quarries. Mr. Tait has nothing but good words for the successful season just passed. He is an experienced cut stone contractor, and has filled many important contracts during the season.

Thomas R. Roy, president of the Central Oolitic



Stone Co., 1211 Chamber of Commerce, says the cut stone men are generally satisfied with the condition of business during the past summer. Conditions all through have favored the contractors and dealers and good prices have been realized. Prospects are exceptionally good. Mr. Roy deals entirely and exclusively in Indiana stone, and has a large plant at Bloomington.

The Builders Material Co., with its general office 600 Chamber of Commerce, deal in all kinds of building materials. Its business extends all over the city. The company has two yards on the south side, nine yards on the west side and three yards on the north side, and all of them fully equipped. Business with them has been exceptionally good throughout the season, and they see nothing in the future to hinder its continuance during the coming season.

Young Stone Co., quarrymen, stone dealers and shippers, 305 Chamber of Commerce, of which Mr. Hugh Young is the president and treasurer, are extensive dealers in stone. The firm has four extensive yards in this city and has the field of their operations pretty well covered. They say the season just passed has been prolific with good results, having done one of the largest businesses since the firm was organized. They also have an office at Toledo. Joliet and Lockport stone quarries do not assume the important position at this time that they did in former years. The quarries there are not furnishing the quality of building stone they once did, and, except for crushed stone, are in course of decadence.

The John Rawle Stone Co., whose works are at Clear Creek, Ind., where its valuable quarries are located, are extensive dealers in building stone in any shape, and also handle large quantities of granite and marble. The company continues to work throughout the winter regardless of weather conditions. Granite and marble reach this city from a variety of quarries. Granite from Georgia, Tennessee, Wisconsin, Missouri and Maine finds its way here. The Wisconsin article finds its largest use in making granite blocks for street paving purposes. The firm is satisfied with the business of the past season, which they say, has been not only a busy but a profitable one. They see no reason why the next season will not be a good one. There is an immense amount of building in sight, involving the expenditure of millions of dollars, and the prediction is made that, barring any serious financial trouble, good times for the cut stone business and for building material generally are exceedingly favorable.

Furst & Fanning, 73 Hawthorne Street, north side, are well known and experienced stone contractors. The firm has done a good business during the past season and has a field of its own. The season's work has been profitable and the outlook for a continuance of good times next season are most promising. The firm buys its stone. The yards are well located for business.

The Perry-Mathews-Buskirk Stone Co. is one of the prominent firms in the stone business, and report a good season's business, and the outlook exceedingly promising for its continuance. The firm is amply prepared to handle any and all business entrusted to them. They have large facilities for getting out stone promptly to fill any orders sent them.

The Chicago Cut Stone Co., 3403 LaSalle Street, have done a good and satisfactory business during the past season, but generally continue their works throughout the winter. "Good prospects ahead" is what one member of the firm said.

The Furst-Kerber Cut Stone Co., 443 Fifth Avenue, reports good prospects ahead. The past season was a busy one with this firm and they have no fault to find with anything or anybody.

#### Among the Granite Men.

The Chicago Granite Co., room 605 No. 101 LaSalle Street, reports the granite business as having made some marked advances during the past season. C. E. Fenn & Co., dealers in granite, with office in the First National Bank building, report a fairly good year in the granite field here. The demand for granite for building purposes is increasing from year to year. The Western Consolidated Granite Co., Chamber of Commerce, report a good season's business done in granite, and an improved demand is springing for its uses in substantial buildings. The Wisconsin Granite Co., Chamber of Commerce building, is pleased at the progress the Wisconsin article has made in this market. The nearness of the quarries in Wisconsin and the easy facilities for getting it here have been in its favor. Prospects for the coming season are good.

#### Marble and Monument Men.

The bulk of all the marble which comes to this market is forwarded from the celebrated marble

quarries in Vermont, owned by Senator Proctor. The Vermont Marble Co., located at the east end of Michigan Street, is a branch of the main office and quarries located at Proctor, Vt. This yard is under the management of Mr. H. D. Pierce, who is familiar with all the details of the marble business. Mr. Pierce reports the marble trade as good during the entire past season, and good prospects ahead, according to all the favorable indications in sight. The construction of so many costly business buildings here within the past year, and fine apartment buildings with expensive furnishings, has widened the demand for marble, and largely increased receipts have resulted.

Marble, however, comes from various other States besides Vermont, but the Vermont article is considered the most desirable for ornamental purposes. Mr. Pierce says that as a result of general prosperous conditions of the country, more money has been invested in monuments to adorn cemeteries than for some years past, and this branch of the business has been a particularly active one throughout the season. Orders have come forward from many sections of the country hitherto not supplied from this city. These monuments are all finished according to specifications, forwarded to the yards in Vermont, and are shipped here in a finished state, and sent forward to the place from which they were ordered. Mr. Pierce says prospects are excellent for a continuance of good times in the marble business, and a successful and promising time will be had next season.

The Davidson Bros. Marble Co., at the foot of Orleans Street, has had its ups and downs, Mr. Davidson having failed twice since he started the enterprise many years ago. The plant is still in operation and during the past season under the recent new management, has been doing fairly well. The principal business at these yards is the making of monuments, and in this line the business during the past season has given entire satisfaction. The plant is operated all the year around.

I. F. Mally & Co., 289-291 E. Fortieth Street, report a good season in the marble line the past season, and consider the outlook most promising for a continuance of the same. The demand for marble for ornamental purposes in expensive apartment buildings, is on the increase, and a large and profitable business was the result of the season's work.

The Florentine Marble Co., The Temple, LaSalle Street, reports the marble trade as exceedingly promising and the business of the past season satisfactory.

Other yards visited did not elicit anything of special interest. All the proprietors of the marble yards seen spoke hopefully of trade and expect to see the present features of the industry continued with even greater success than was apparent during the past season.

### LOUISVILLE, KY.

LOUISVILLE, Ky., November 25.—One of the most successful years for building operations in the history of this old Southern city is just drawing to a close; and with this record, prospects are even more flattering for the year 1906. During the twelve months past a number of notable structures have been completed, and others begun, which will carry the city's name throughout the entire United States and help gain the long desired reputation as one of the greater cities of the country.

Plans are now being drawn for a twelve-story structure to be erected at the corner of Fourth and Market Streets, which will add materially to that locality. The work on the excavation of the Paul Jones building at Fourth and Jefferson Streets is now under way, as also that of the Carnegie library. Work will be started next month on the Seebach annex which will be ten stories high, and on a large apartment house on Walnut near Third, which will be one of the most modern and beautiful structures of this kind in the South.

A new theater is talked of, to be erected at Fourth and Chestnut Streets, and it is also rumored that an immense department store will be erected at Fourth and Walnut, and a modern hotel at Fifth and Walnut Streets, and within a year's time another sky scraper at the Southwest corner of Fourth and Market Streets. These are merely a few of the prospective building operations in this city, which show that activity in the building line is making great headway here.

The cut stone people and others engaged in the building line are more than gratified with the year's business. Although, there has been some complaint among local contractors to the effect

that many of the large contracts have been awarded to parties outside of the city, the popular idea is that that these contractors have been discriminated against unjustly. We believe this is mere idle talk as there is no inclination on the part of our citizens to give the preference to outside parties where all conditions are equal. The competition has been keen in regard to some of the contracts awarded, and has had a tendency to spur the local contractors on to greater efforts, and they hope to be more successful here next year.

The apartment house idea is gaining here each month and there are in course of construction a number of large apartment buildings; in addition to these a number of others are being talked of which will mean more to the building material man, as such structures require large amounts of material.

Out at the large plant of John Diebold & Sons, prominent cut stone contractors, conditions were most flattering and they have been compelled to put in considerable over-time lately, in order to take care of their increased contracts. They do not confine their business to this vicinity by any means and are fortunate enough to secure contracts in other sections of the country, many of which are quite large. They have sufficient equipment and hands to take care of the largest contracts, and the scene at their large plant was one of much activity. Mr. Andrew Diebold said that they were well pleased with the year's business and had accomplished much more than they had hoped for on account of the fact that so much of their time had been consumed in enlarging and adding new equipment to their plant.

The Peter & Melcher Steam Stone Works are still busy on a number of large contracts taken some time ago. They have found the demand for building stone to be quite large. They are working full time at their plant and Mr. Ed Peter expressed himself as being well satisfied with present conditions. In addition to the cut stone industry, they also operate a monumental plant and have had one of the best seasons in the history of their business during the year 1905, with the demand still quite active.

J. S. Clark Monument Co. report that the call for high class monumental work is still in vogue, notwithstanding the fact that the season is growing late. Mr. Clark said that he was figuring on a number of nice jobs and while there was nothing especially new to report, was very much surprised with the way business was holding up.

The Muldoon Monument Co. say that the general conditions throughout the South have much improved during the past month, and are now busy completing a number of important contracts taken some time ago. Owing to the fact that the yellow fever demoralized business in the South to a great extent during the summer months, their business was greatly affected in that locality, but conditions have now changed and they are looking forward to something of a great demand for monumental work, although, it is rather late in the season to hope for many large contracts.

Joseph H. Peter & Co. say that they have enjoyed a good business during the past month, and that orders have continued to come in for local and out of town work in a very satisfactory way. Aside from this there was nothing particularly interesting to make public.

Joseph H. Gernert has erected a new monument shop at 630 East Jefferson Street, and removed from his former location at 751 E. Jefferson Street. He has a modern building with ample room for enlarging his plant as he finds it necessary. He has a good location, and having been in this particular neighborhood for a number of years has an established trade. His new plant has ample light, and his display room is quite attractive. He has enjoyed a good demand for monuments this past season and is still quite busy. It is possible that he may install a pneumatic tool plant early in the year, though he would not say definitely in regard to this.

### KNOXVILLE AND THE SOUTHEAST.

KNOXVILLE, TENN., November 28.—The Gray Eagle Marble Co., of Knoxville, has secured the contract for furnishing the interior finishing work of the McKinley monument at Canton, Ohio. The company will ship about thirty car loads of marble to fill this contract. It is understood that the marble company securing the contract will at once commence work on same.

The W. J. Oliver Manufacturing Co. is making extensive preparations for increasing its capacity at Knoxville. The firm does a large amount of grading and construction work in the South.



## THE TWIN CITIES.

MINNEAPOLIS, MINN., November 25.—While work seems to have slumped off considerably, in comparison with the rush that existed a couple of months or more ago, yet the building permit total as well as a casual examination of the streets of these cities shows that there is still a goodly amount of work being done, and this too, in spite of the fact that there was an abnormally early fall of snow. Though this soon melted away, yet it served to delay those who were figuring on rushing out plans and having work started on buildings to be rushed along until cold weather. The cold snap was soon succeeded by Indian summer, and there were a number of belated jobs in view, some of which were started, either to have foundations put in or some to have the work pushed along as far as possible.

Conditions generally are very satisfactory. The architects, while they do not have a great deal of news on hand for publication, are all in possession of projects which will soon develop, and the outlook was never better than it is now.

Price conditions remain about as they were a month ago. The supplies of Portland cement have been low at a number of points, resulting in a local scarcity which was billed as a famine in some reports. The deliveries of structural iron and steel for building purposes are lamentably slow and a number of buildings have been delayed for some time on that account.

Bell & Detweiler, architects, have had plans out for the erection of a handsome courthouse building for Fairmount, Minn., to cost \$75,000.00. The bids closed November 23.

The Boyd Transfer and Storage Co. has put in the foundations for a one-story brick storage warehouse at 307-9 Third Avenue North. It will be 44x108 feet in size, with pressed brick front, some cement work, fireproof construction, etc. L. A. Lamoreaux is the architect.

Reed & Stem, the St. Paul architects, have completed plans and work, started for a handsome residence for E. N. Osborn at 2327 Pillsbury Avenue. The residence will be 54x84 feet in size and the garage 42x30, both of pressed brick and cut stone. They will have all modern conveniences. Cost, \$35,000.00.

The Crane Co., of Chicago, has purchased a site in the wholesale district at Third Avenue and Fourth Street North, where a handsome building will be erected for the local branch of the company—the Plumbers and Steamfitters' Supply Co. The building will be erected next season and will be 66x162 feet in size, five stories high, of concrete and fireproof construction. Cost complete, \$200,000.00.

The Minneapolis, St. Paul and Sault Ste. Marie railroad, known as the Soo Line, has had plans prepared by William M. Kenyon, architect, for a brick freight warehouse, to be erected opposite their passenger station at Fifth Avenue North and Second Street. It will be fireproof. Work will be started in the spring.

S. Morton Cohn, of the International Theatrical Co., has been in the city recently arranging for a site upon which to erect a vaudeville theater next season. A site has been selected upon Sixth Street, near Hennipen Avenue. A \$100,000.00 building will be erected, of pressed brick and terra cotta.

The W. S. Nott Co., rubber belting, and other supplies, have bought a site at Third Street and Second Avenue North, in the wholesale district, and will erect thereon a five story building in the spring, to cost complete, \$150,000.00.

F. G. Corser, architect, has completed plans and foundation work is started at Second Avenue South and Sixth Streets, for an office building for the *Daily News*. It will be 88x120, three stories and basement, of pressed brick and cut stone construction, with fireproof vaults.

Bertrand & Chamberlin, architects, have completed plans for a police station to be erected on the East Side, on First Avenue Southeast, between Fourth and Fifth Avenues. It will be of pressed brick and cut stone, costing \$10,000.00.

Long & Long, architects, have prepared sketch plans for an elaborate warehouse building, to be erected for the Kellogg, Mackay, Cameron Co. It will be of fireproof construction.

C. F. Haglin has been awarded the general contract for the superstructure of the addition to the main exchange of the Northwestern Telephone Exchange Co., at Third Avenue South and Fifth Street. It will be four stories, of fireproof concrete construction. W. B. Duane, architect.

## SAINTLY CITY BUILDINGS.

The Y. M. C. A. has made an aggressive campaign to raise funds for the erection of a handsome building, to cost \$250,000.00.

McKibbin, Driscoll & Dorsey have had plans prepared for an extension of their factory building and warehouse, to be 60x165, six stories and basement, of similar construction as the main building. Cost \$75,000.00.

Bucher & Orth, architects, have plans for three school buildings for Dubuque, Iowa. They will contain respectively sixteen, ten and eight rooms. They will be of brick and cut stone construction. Bids will be taken shortly.

Hermann Kretz & Co., architects, have plans out and bids are being taken until December 14, for the construction of the church for the Roman Catholic parish of New Prague, Minn. Cost, \$70,000.00.

The International Theatrical Co. has bought a site on Seventh Street near Minnesota, whereon to erect a handsome modern fireproof vaudeville theater, to cost \$110,000.00.

The most important building, perhaps, to be erected in the city next season—at least one of them, will be the new auditorium. It will be built on plans by Reed & Stem, architects, and will be 180x300 feet in size, with seating capacity for as high as 10,000 people. Cost \$250,000.00.

## SYRACUSE, N. Y.

SYRACUSE, N. Y., November 30.—The records of the office of the fire marshal of Syracuse show that since January 1, of the present year, the amount of new building has been about \$2,000,000.00 and the amount of repairs and improvements on old buildings nearly \$1,000,000.00. In general this shows an improvement over last year except that last year the Carnegie library and the courthouse, which two buildings alone cost nearly \$2,000,000.00, were included in the budget and helped to swell the figures. The library is completed but the courthouse is not, and the board of supervisors will have to bond for \$400,000.00 more in order to complete it.

Charles Thomas has one of the largest stone yards in this section, located in Taylor Street. He handles and cuts Onondaga limestone, Indiana limestone, granite, marble, East Long Meadow brownstone, Ohio sandstone and other building materials. Mr. Thomas is well pleased with the season. He has been at work on stone for the addition to the Women and Children's hospital, in which Onondaga limestone and Indiana limestone is used. Mr. Thomas handles marble from the quarries of the Gouverneur Marble Co., Empire Marble Co., and St. Lawrence Marble Co., which are located in the vicinity of Gouverneur. Mr. Thomas' yard is equipped with a 40 h. p. electric motor which furnishes the power. He has among other machines a stone saw made by the Ruggles Machine Co., of Poultney, Vt. Stonecutters in Syracuse work eight hours a day and four hours on Saturday, and get 50 cents an hour for their work.

The courthouse which is in process of construction and which will cost \$2,000,000.00, before it is finished, is being built by Wells Bro. & Co., New York. The basement is of granite and the upper part of Indiana limestone.

The new South Presbyterian church is being built of stone from the Genesee Valley bluestone quarries, located at Rock Glen, four miles from Warsaw, N. Y. Ingalls & Co., of Binghamton, are the cut stone contractors.

The Carnegie library building which is being erected at Syracuse University, in addition to the Carnegie library building in Syracuse, will have Woodbury, Vt., granite for the basement, steps and approach and brick and terra cotta trimmings above the base. The body of the building is of concrete blocks, made by the Paragon Plaster Co.

Another important building which is now being erected is the Universalist church, the basement of which is in Woodbury gray granite, and the superstructure of which is trimmed with Indiana limestone. The new building of the Bell Telephone Co. has Woodbury granite basement with Indiana trimmings, the roof, coping, rear sills and area coping being of North River blue stone.

On the Onondaga Indian Reservation, about two miles south of Syracuse, are some excellent limestone quarries, which are leased from the Indians by John Kelley and Patrick McElroy, who run quarries but a short distance apart. Among the recent buildings of this limestone is the power house to the new courthouse. A large number of

buildings are of this material and have given excellent satisfaction.

The Rock Cut Stone Co., of Jamesville, was organized this summer as a stock company to operate crushed stone quarries near Jamesville, which is only a short distance from this city. The stone is used for concrete work and other purposes. The quarries were formerly owned and operated by the late Anson Alvord, who left the bulk of his estate to Thomas Anderson. The office of the company is in the Onondaga County Savings Bank Building.

The Bethel white granite received from the quarries at Bethel, Vt., is a popular stone. One of the buildings erected this summer of this material is the house of Charles S. Estabrook. This stone is very hard and durable.

C. Linehan & Son, who run a monument works at No. 617 South Slina Street, have had a good summer, as indeed have all the seven monument men in the city. Mr. Linehan is putting in a pneumatic tool arrangement, which he purchased from the Blaisdell Manufacturing Co., of Bradford, Pa. There has been a slight advance in prices, but no material change.

Delaney & Soule, of South Warren Street, put in a pneumatic tool several years ago and have been very well pleased with it. The monument men report that shipments are slow and some of their orders have been on the road three or four weeks. Freight in the East Syracuse freight yards is tied up.

The stone men are interested in the passage of the good roads amendment by the people of New York State at the recent election, which will cause an expenditure of \$50,000,000.00 for improved roads. State Engineer Henry A. Van Alstyne was in the city the other day and said that work on the trans-state highway would be commenced at once. This will be macadam and will extend from New York to Buffalo through Albany, Utica, Syracuse, Rochester and other cities on the way. The distance from New York to Buffalo by this highway will be about 439 miles. Eventually there will be another trans-state highway passing through the southern tier of counties.

Eleven acres of land on the Scotch settlement road, three miles from Gouverneur, have been sold to Corrigan, McKinney & Co., of Cleveland, Ohio. This property comprises a valuable white marble quarry and the owners are making preparations to operate it. A complete equipment of machinery will be installed and forty to sixty men will be employed, and 150 tons of marble will be crushed daily to be used as flux at the several iron furnaces owned by the company. The quarry has been idle for several years.

Jenney & Nelbach, the Utica, N. Y., monument dealers, have bought the L. Donsbach stock of monuments and fixtures of the shop and have moved them to their yard on Columbia Street. A petition in bankruptcy was recently filed against Mr. Donsbach.

## MEMPHIS AND THE SOUTHWEST.

MEMPHIS, TENN., November 25.—Among the prominent lime, cement and stone working firms of this city, trade continues quite good with prices comparatively satisfactory when taken in connection with other years. The large amount of building and public work going on and still being planned for next year, gives encouragement to this important line of trade in Memphis and the Southwest.

The Wright Lime and Cement Co., now occupying their new quarters at 88-92 Hernando Street, are situated far better than the old place on Second Street, as now the warehouse, office and yard space is almost twice as large, and the buildings are better for light and arrangement. Mr. Wright said: "Business was never better. We have been in our new location nearly two months, and we are doing a good deal of shipping."

The Memphis Sand and Gravel Co. has just been established at 1012, 1013, 1014 Tennessee Trust Building. They will deal in Mississippi treated sand and gravel. This is coarser and sharper sand than some and is taken from the bars, cleaned and put in the finest possible condition. Clarence De Voy, secretary of the company, said that the trade outlook was very flattering. The firm has now one yard and expects to put in several others from time to time.

The Memphis Fiber Plaster Co., capitalized at \$30,000.00, has received its charter and the following officers have been named: D. S. Weaver, president; W. R. Johnson, vice president; C. W. Stover, treasurer, and F. D. Graham, secretary and general manager.

# Quarries.

## SANDSTONE.

### A Deposit of White Sandstone in Canada.

What is said to be the only deposit of white sandstone in Canada is now being quarried at Simpson Island, in the Nepigon bay. Before the discovery of this deposit, all white sandstone was shipped to Canada from Ohio or imported from Scotland. The quarry has been leased by Capt. Thompson, W. McKirdy and others, who are at present employing about twenty-five men, aside from those employed at the yards; this will be augmented within a short time. The stone will be shipped by barge to various points. As the stone is said to be of a fine quality the operators anticipate a large and increasing business as it becomes known.

### Change in Old Sandstone Quarry.

ELYRIA, OHIO, November 24.—Changes have recently been made in quarry property here which are of some importance to this locality. The Ohio Quarries Co., has purchased ninety-three acres of sandstone property, known as the Amherst Stone Co., and the Quigley quarry. Some reference was made to this in a recent issue of your publication, but there are several things of interest as yet not mentioned. About thirty-four years ago French, Dodge & Dunham, of Cleveland, purchased the above property from G. W. Quigley and Adam Hallstein, and the Amherst Stone Co. was organized. Considerable equipment was installed and large amounts of stone was gotten out and some notable structures were built of it. Fully twenty years ago this quarry was closed and the equipment sold at a sacrifice. In operating this quarry all the work of getting out the stone was done by hand, as neither steam drill nor channeling machines were used. A large number of improvements will be made at the quarry and a big force employed.

### Sandstone in Minnesota.

Extensive deposits of sandstone, which have as yet been untouched by the quarry operator, are found in Minnesota. These comprise the white, yellow, red and brown varieties. In referring to these deposits Mr. Hall, geologist of the State University, states that some are so difficult to work, on account of their hardness, that the best tools can make but little progress in quarrying or dressing them. Others are quite the opposite, and as a whole, represent an interesting variety of physical characters.

Many of these stone formations lie in the vicinity of the Minnesota river, through Todd, Stearns and Morrison Counties to Duluth, Hunter's Island and the Lake of the Woods. In other regions of the State, from Stillwater to Jefferson, from Mankato to Winona, from Minneapolis to Garden City, dolomites, limestones, sandstones are found in large quantities. Considerable building stone from quarries in some of these sections has been marketed, some of which has been used in large structures in many Eastern cities.

In the local markets the bluffs of the Minnesota from Mankato to Shakopee afford millions of yards each year, and the St. Croix Valley walls at Taylor's Falls and Stillwater present inexhaustible supplies. The cities growing beside the Mississippi river never want for building material; the Twin Cities consume Trenton limestone; Red Wing is cutting down Barnabuff, and Winona has the crest of Sugarloaf almost removed.

Pipestone, Jasper and Luverne have paved many miles of Chicago streets. The quarries of sandstone of the Kettle river are in recent years affording a wonderful supply of one of the best sandstones the quarries of the United States afford. It competes successfully with the famous Euclid stone, Waverly stone and Berea stone of Northern Ohio.

## LIMESTONE.

### City to Purchase Quarry.

WINNEPEG, MANITOBA, November 10.—The question of purchasing a stone quarry at Stony Mountain by the Board of Public Works is one of the important questions which has come up lately. There have been several sites offered, among which is an eighty-acre quarry, the property of John Gunn. This property contains nearly sixty acres of crushing stone, and can be quarried to a depth of twenty feet or more, and there is practically no stripping. One of the advantages of this quarry is the fact that the height above the prairie being fifty feet, a crushing plant could be so located as to permit of all the stone to a depth of twenty feet being dumped directly into the crusher without hoisting. This would mean a considerable saving in the cost of operating same. Other properties were offered, but these were rejected for various reasons. It is quite likely arrangements will be made to begin operations at the above quarry in a short time.

### Prosperity and a Failure.

ALBION, N. Y., November 8.—Conditions among the local stone quarrying interests here are somewhat varied. While the Orleans Quarry Co., which was recently incorporated with a capital stock of \$100,000.00, and which has offices here, are very busy, notwithstanding the company is new. Orders have come in satisfactorily and the indications point to a most successful operation. The affairs of the Medina Quarry Co., for which a trustee has recently been appointed, are in a bad way. This company began business handicapped with a bond issue of \$1,200,000.00 and a large expense for reorganization of a large number of small quarries under one management. In addition to this considerable new equipment was purchased, and despite the efforts of the organization to make progress it was impossible. The affairs will be wound up in a short time and the company will cease.

### To Develop Stone Quarry.

ASHEVILLE, N. C., November 16.—A valuable rock quarry on the east side of French Broad river will shortly be developed. A company has been organized here by R. S. Howland, president; S. P. Ravenel, vice president, and W. G. Chandler, secretary and treasurer. The latest equipment will be installed, including a crusher for ballast purposes. The exact location of the property is on the Asheville and Craggy Mountain railroad at Craggy Station. A spur track 300 yards in length has been laid to the quarry. The company has a number of orders on hand and look forward to doing a nice business.

### A Large Stone Operation.

CHATTANOOGA, TENN., November 23.—The Chickamauga Quarry and Construction Co., write us saying: "Our two quarries are busy, crushing and furnishing bridge stone and ballast for railroads, rubble and concrete for foundation walls, curbing for streets, ashlar for building walls, roofing gravel for roofs and fluxing for furnaces; in fact, we are prepared to furnish all kinds of hard limestone. We contemplate putting in a machine for grinding stone to flour, to mix with asphalt and for building blocks, which seems to be the coming fad for houses. There is now being formed a company to engage in this kind of work in this city; it will be a strong company, financially. We have put in an air compressor machine the past year, and improved our quarry machinery in many ways; have been busy most of the year.

"Our city is growing very rapidly, and is the most cosmopolitan city of the sunny South. Our greatest trouble is getting laboring men; while machinery does many things for all men, still, we can't get along without common labor."

### A Real Stone Man.

ST. CLOUD, MINN., November 12.—John Janski, a young man residing here, is a human stone quarry. Fourteen months ago he was the victim of an explosion in a stone quarry, since which time the doctors have been removing particles of stone from his body. Four thousand pieces of stone have been removed from various parts of Janski's anatomy. A piece of granite weighing an ounce came out of his arm in an operation several days

ago, and another of half an ounce weight was removed from the socket of his eye, which was lost in the explosion. Four times a week, Janski, without taking any anaesthetic, submits to the knife and undergoes the ordeal.

### Take Pride in Their Record.

CARTHAGE, MO., November 22.—The Carthage Superior Limestone Co. send us the following: "Our plant is now running full blast in every respect. We think that, by having accomplished this, somewhat of a record has been broken, inasmuch as it was just seven months after we took possession of an absolutely barren quarry bluff, that we started the wheels of one of the finest mills of its kind in the West. Another record was broken when, just three weeks after the day shift commenced regular work, it was found necessary to put on a regular night shift. This was occasioned through the large demand coming from parties who had visited our plant. The educational campaign which this company is carrying on is already commencing to bear fruit, in that the most prominent architects are specifying Carthage Superior Limestone, where formerly they left the definition concerning stone sufficiently open to admit limestones generally. Prospects so far as building are concerned, are more than bright, and we are already figuring on making substantial additions to our equipment."

### Big Crushing Order.

CAPE GIRARDEAU, MO., November 16.—Edw. Hely writes us: "I am busy crushing stone for St. L. S. W. Ry., Frisco, and send thirty cars to-day on a 100 car order to Shreveport, La. We have had a wet, dull season at Monon, but lots of work in sight. Your paper is O. K. and always a welcome visitor."

### Blasting no Longer Dangerous.

The time when blasting with dangerous explosives in quarries or other operations, accompanied frequently with fatal results, is now numbered among the things of the past, as the methods in vogue at the present time have eradicated these dangers and practically all of the blasting is done now by electricity. Blasting in former times was often a dangerous event, not infrequently attended with accidents, more or less fatal. After the charge had been carefully rammed down and the preparations made for setting off the fuse, the workmen sought places of safety, leaving one courageous man to light the fuse and seek safety as quickly as possible. Despite the fact that these preparations were made with great care, they frequently discharged quicker than they should have done, and before the unfortunate man could make his escape. At other times, owing to the fact that the fuses burned so slowly, the operators were deceived into the belief that it had entirely gone out and in attempting to relight it, were suddenly appraised of their danger and oftentimes gave up their lives as a consequence.

The latest method used in this dangerous operation is the electric fuse which is composed of a cartridge of paper or brass filled with powder. Two wires are carried into this, the ends being tipped with platinum and separated by a short gap. The wires are laid on the ground at such distances as the operator deems necessary, after which they are fastened to two brass binding posts of the exploder. The electric current generates the spark in the exploder by pushing down the handle, at which time the current is carried along the wires, igniting the explosive in the fuse, which in turn fires the blast. A large number of blasts can be fired off simultaneously by attaching the required number of wires to the exploder. There is a number of little instruments on the market to-day and the prices are very reasonable, considering their invaluable assistance to the quarry operator.

The Penn Limestone Co. has been organized at Reading, Pa., with a capital stock of \$15,000.00. The company will quarry, sell and deal in limestone. The incorporators are: C. A. Conrad, F. J. Boyer, A. S. Boyer, H. M. Spuhler and M. J. Carl, of Reading, and E. L. Wesley, Chambersburg; J. A. Speer and T. W. Boyer, of Bangor.

The Electric Quarry Co., Belvedere, Ill., has made some changes in its plant lately and will add some equipment. O. H. Wright has withdrawn his interest.



## OOLITIC LIMESTONE NOTES.

BEDFORD, IND., December 2.—The season for active operations in the quarrying industry in this section is about over, and practically all of the operators are going into winter quarters. With the exception of some stripping and quarrying of top stone, there is little else doing in the various quarries about here. Of course the mills are actively engaged yet, and many of them will continue to be so throughout the winter months, as the orders on hand are amply sufficient to require a large force of hands.

The past year has undoubtedly been the largest and most active season ever experienced by the Indiana oolitic operators and the demand for blocks and building stone has been unprecedented in the history of this now national industry. There is a fair amount of stone on hand despite the immense amount shipped out, and the mill operators will have an ample supply to carry them through up to the time for work in the quarries.

The old trouble of car shortage is still hampering all the stone men yet, although conditions are somewhat improved in this respect. This has been a decided drawback to the industry generally, and for some time threatened to attain serious proportions and caused the operators no little anxiety, because of the fact that the parties who had ordered the stone were anxious to use same in the construction of buildings before cold weather set in, and were urging them very vigorously, and it was felt as a consequence a number of nice orders might be cancelled.

Mr. John A. Rowe reported that he was still actively engaged in cutting stone, and is completing some nice orders taken some time ago. He did not have any particularly large orders on hand at the present time, but sufficient work to cause him to operate day and night. The truth about the matter is, that he has enough work ahead to keep him busy until the middle of next year. He is well fixed for winter, as he had on November 1 a large amount of quarried stone. He is just at the present time installing a New Albany Manufacturing Co.'s header and is adding 80 feet of tramway to his stone mill. He reported that he had had an excellent year and looked forward to a very active demand in 1906.

The Bedford Steam Stone Works said that while they were still busy they had noticed the slackening up in the demand, which was natural to expect at this season of the year. Mr. Thornton said that they were still operating full time, and had enjoyed a very excellent business during the present year. He further reported that the present conditions in the stone business are remarkable, and the demand has been most flattering. He has an ample amount of stone on hand for winter operations having on November 1 something like 40,000 feet of seasoned stone. The quarries are not operating at the present time, as the winter months have set in in a mild way and the quarries will be closed down for some months. He anticipated a much larger demand next year and was highly pleased with the outlook for the stone industry.

Mr. B. F. McKinley, of the Climax mill, said that they were busy, and had nothing of especial interest to make public. He had only a fair amount of stone on hand for winter operations, and said he looked for a very active year in 1906, and was more than gratified at the amount of business done during the year now drawing to a close. He did not expect to improve his plant in the near future as his present equipment was amply able to take care of the demand for sawed stone.

## Big Plant Has Plenty of Orders.

The big mill of the Furst-Kerber Cut Stone Co. is still enjoying its usual activity. Mr. Henry Furst was found superintending some work in the mill and gladly showed your correspondent some particularly nice work they were turning out in the way of large columns. They are still working their full complement of men, and Mr. Furst said they would be busy during the cold weather, as they had a large number of orders on hand to keep them actively engaged. In order to make it more pleasant for the large number of employees, they are at present installing a complete heating system manufactured by Wm. Bayley & Sons Co., Milwaukee, Wis. This will be so nicely arranged that on Sunday, and during other hours when the mill is not actively operating, they can, if so desired, keep the plant well heated with live steam. During the operating hours the heater is so arranged that they can use exhaust steam which will be sufficient to keep the building comfortable. Mr. Furst said that they had had the largest year in the history of the organization, and are looking

forward to a much greater demand during the next twelve months. They were well prepared to take care of a large amount of work and when one considers the size of this plant, this means a great deal.

At the office of the Oolitic Stone Co., of Indiana, we learned that Mr. Robert Reed was out of the city. We managed, however, later in the day to get him by telephone and he reported that they were still busy operating, although they were not rushed. They had had a very successful year, with a bright outlook for the coming season. He was not prepared to make any statement for the coming season, but that indications were for a very active season.

## The Dugan Cut Stone Co.

The firm of George Dugan will hereafter be known as the Dugan Cut Stone Co. Mr. Dugan has incorporated the company in connection with several others, and details of which we will not be able to make public at this time, owing to some detail which has not been completed regarding the new organization. They are making great headway on the Kentucky Capitol job, and this will keep them busy for a good many months to come. They are just now arranging to put on a night force in order to make greater headway and expect to find this change quite advantageous to them. Mr. McGrath, in the absence of Mr. Dugan, who was at Frankfort, Ky., said that they were enclosing a portion of their plant, having the entire tramway under cover, and were making other preparations for the winter months. They had just installed a 15 ft. header of the New Albany Manufacturing Co.'s. He said they were well pleased with the progress made on their big job, and were confident it would be completed in ample time for the contractors.

There is a new quarrying company here known as the Bedford Stone Construction Co., of which Mr. Mike Walner and others are interested. Mr. Walner was for some years superintendent of Wm. Bradley & Sons' stone plant, of this city, but several months ago purchased a tract of quarry land containing valuable stone. We could not locate Mr. Walner, but learned that a separate company had been organized to construct a railroad two and one-half miles in length to the quarry, this being the distance of the property from the railroad proper. From what we know and could learn, Mr. Walner and his associates have a valuable quarry, and from all indications the outlook for this new organization is especially fine.

Wm. Bradley & Son continue to enjoy a good demand for building stone. Since the resignation of Mr. Mike Walner as superintendent, the plant has been under the guidance of E. L. Borst, an old Bedford man, who has recently been employed at the New York plant of Messrs. Bradley & Son. Mr. Borst was glad to get back to Bedford and was well pleased with the prospects for the next year, and now looks forward to the brightest year for the Indiana oolitic stone in the history of the industry. He had noticed a slight slackening in the demand, but it had not affected them to any extent. They had not contemplated making any change in their plant in the near future, and he was satisfied with conditions in general.

BLOOMINGTON, IND., December 2.—Among many of the large quarry operators and stone mill men in this city and vicinity, there is a feeling of satisfaction over the immense amount of business done during the past twelve months. Without a single exception all of the operators have enjoyed a most phenomenal demand, and the Indiana oolitic stone has found its way in nearly every section of this country. Just as in other sections of the district, the car shortage trouble still exists here, and some of the operators still find it quite difficult to fill their promises on this account. This condition of affairs will right itself within a short time, it is believed, and with the outlook for the biggest year of the industry, the stone men will enter the new year with glad hearts.

The officers of the Big Four, which comprise the Mathers, Star, Hunter Valley and other quarries, will be moved to Chicago, Ill., on January 1, 1906. They have secured apartments at 560 Old Colony Building. Mr. D. K. Miers was in that city making preliminary arrangements for the removal when we called. The report at the office was very encouraging. They were still very busy at the mills, although with the exception of some stripping and quarrying of top stone the quarries were not operating. A new feature has been added to the quarries lately, which is known as the hydraulic stripping. This is a very simple operation, one of the main features being the use of a pump

which is manufactured by the Smith-Vale Pump Co., Cincinnati, Ohio, and is not only a great time saver, but lessens the cost of stripping at least 50 per cent. The demand for the blue stone has not been as large as was desired, but on the other hand the demand for buff stone is increasing at a very rapid rate. They have had an exceptionally fine year and expect the biggest year in their history in 1906. They still experience some difficulty in obtaining a sufficient amount of cars for making shipments, but this has not handicapped them to any great extent.

## Deserves a Vacation.

The Central Oolitic Stone Co., report the demand as holding up remarkably well, in fact, Mr. William Blair said that he had worked night and day for so long that he deserved a short vacation, and if it was possible was going to arrange to take same in the near future. Of course the demand has slackened slightly, and they will soon close one of the most successful years in his experience. Indications were never more flattering than for the coming year, and he felt very much pleased over what he considered a most prosperous year. They have a good stock of stone on hand for winter operations and expect to be kept reasonably busy during the cold months.

The Chicago and Bloomington Stone Co., and the Johnson-Mathews Stone Co., which are controlled by the same parties, continue to enjoy a good business. Mr. William Johnson said that the demand for cut stone was slackening up some, but on the other hand orders for mill blocks were still very large. They expect to operate their mills all the winter and to a great extent their quarries. Like other parties still they find difficulty in obtaining a sufficient number of cars. But aside from this they have no complaint to make at all, and according to Mr. Johnson, 1906 will be the banner year for the stone business. They have already secured some nice orders for the new year, and are very much encouraged over the outlook.

Mr. Joe Campbell, from the South Side Stone Co., reports conditions to be about the same as a month ago, and while they are still busy now, did not know how long they would continue to operate as it was some times difficult to operate in the severe months. They hope for a good year in 1896, and from indications believe same will materialize, although he would make no predictions regarding such a probability.

The U. S. Quarries Co. are still busy operating at their quarries, and have a splendid outlook for 1906. All of the output for 1905 has been disposed of, and according to Mr. N. W. Wright, who was seen in the absence of Mr. Fulwider, prospects were more flattering than ever for the coming year.

The Eagle Stone Co. has closed down their quarry proper, although they are opening up new quarry property which gives indications of obtaining some very fine stone. These will not be operated on an extensive scale until after the winter months. It is expected within a short time they will add some new equipment, including a channeled and other machinery. They have enjoyed a very prosperous year and look forward to a much more prosperous one during the next twelve months. Mr. W. S. Hooper, secretary of the company, has resigned his position owing to ill health and will return to Mattoon, Ill., his former home. It is not known who will succeed Mr. Hooper as secretary of the company.

The Monarch Stone Co., through Mr. Loudon, reported that they had a very successful year and still had plenty of orders on hand, and were anticipating one of the most prosperous seasons in the history of their organization. As some changes have been made in the company's officers they will likely greatly increase their output during the coming months.

A call at the office of the National Stone Co. found Mr. Freese absent, he having gone to the quarry, which, it was learned, they are still operating to some extent.

The Marble Block Co., of Sheffield, Mass., has been organized with a capital stock of \$64,000.00, to deal in marble, etc. F. Curtiss, president; F. H. Wright, treasurer; R. A. Curtiss, clerk.

The McPherson Marble Works, McPherson, Kan., has been purchased by Al Graham, I. F. Talbott and S. A. Nelson. The business will be enlarged.

The Sherman Flavin Marble Co., Chicago, Ill., has been incorporated. The capital stock is \$25,000.00, and those interested are: Michael D. Flavin, John Byle and Israel Shrimski. They will manufacture the product of marble.

## MARBLE.

## Marble Dealers' Meeting.

The National Marble Dealers' Association held its annual meeting at Buffalo, N. Y., on November 16, at the Lafayette Hotel. President, W. H. Evans, of Baltimore, Md., presided, and there were about thirty delegates in attendance. The election of officers and reading of reports occupied the greater part of the day. This organization is composed of a number of dealers from several States.

## A Find of Marble in Montana.

Fine marble of gray and white has recently been discovered in the Sweet Grass hills, Montana, on the line of the Great Northern Railway. Samples taken from the deposit are said to be of excellent quality and steps will likely be taken to develop same at an early date.

## Inspecting Indian Territory Marble.

It seems probable that within a short time several more companies will be located at Marble City, Ind. Ter., for the development of that valuable deposit of white marble. Some parties from Tennessee have lately visited that section with the above object in view, but it is not known whether anything definite was determined.

## To Crush Marble at Gouverneur.

GOVERNOUR, N. Y., November 22.—Corrigan, McKinney & Co., Cleveland, Ohio, have just purchased eleven acres of land near here containing a valuable white marble quarry. They will install modern equipment, including a crusher, and work the quarry on a large scale. Nearly sixty men will be given employment and they will crush about 150 tons of marble daily. This quarry has been idle for several years and its re-opening means much for the industry here.

## Have Plenty of Orders.

ATHENS, GA., November 23.—The Athens Marble Co., write us saying: "We started up our firm August 1, 1905, and had three young men on the road by the 15th, and they have done well. We have orders enough on hand to carry us through the winter months. We have not yet done anything in granite, but think now we will during the incoming year."

## Looking for Marble Consignments.

LONDON, ENG., November 15.—Fred Reeves, trading as Thomas Reeves, has given up the premises in Walworth occupied for so many years by his father and grandfather, and transferred his business of marble, granite and stone merchant to an extensive wharf on the Grand Surrey Canal. He is fully equipped with electrical machinery, and open to receive consignments of American or other marbles suitable for placing on the English market.

## New Company Purchases Marble Tract.

BALTIMORE, Md., November 18.—A tract of valuable property containing a fine quality of white marble, has just been purchased by the Baltimore County Marble and Trading Co., in Baltimore County. Arrangements will be undertaken at once for the development of this deposit, which is situated near the Great Gunpowder river. The company was recently organized here and has a capital stock of \$150,000.00. The officers are: W. P. Harvey, president; N. E. Miller, secretary, and G. L. Stewart, treasurer.

## A Vermont Marble Plant.

The Clark-Borden Marble Quarry, a well developed quarry on the famous West Rutland vein, which was re-equipped and re-opened by G. P. Eastman a little over a year ago, seems to be doing a steadily increasing business. At that time Mr. Eastman began business with only one piece of quarrying machinery; to-day the quarry is equipped with five. The Columbian Marble Quarrying Co., a prosperous manufacturing concern, take the entire output of this quarry as fast as the blocks can be produced. The business furnishes employment to some twenty men and several teams. The quarry is now fully one hundred feet down in the vein and is being enlarged with every flooring. The marble is mostly of a very high grade and has attracted no little attention by its fine quality.

## A Busy Quarry in New York City.

It sounds strange to speak of stone quarries in New York City, but at Elm Park in Staten Island, on the line of the Rapid Transit railway is one called the Quinn-Roy quarry that is in full operation and turns out a steady supply of paving blocks and crushed stone for all uses. The biggest heads of rock are broken up with Ingersoll drills, but as the paving blocks are the most desirable part of the output the greater part of the work is done with that object in view and hand drills are used to make rows of holes following



THE QUINN-ROY QUARRY IN NEW YORK CITY.

the rifts, and the mass is then "plugged out" in condition suitable for the block men.

Mr. Quinlan said that the color of the stone led people to call it blue stone, but it really was a form of syenite, but would readily pass for blue stone. It is extremely hard, being the flintiest stone he had ever come across, and it was dreadfully hard on the drills and crushers. But it ran in well defined rifts, and when those were followed it could be worked easily and perfectly, but when struck on the flat it was impervious to the sharpest and heaviest hammer.

Expert New England granite block makers come there and find themselves quite at sea till they have acquired an acquaintance with the rock.

There are a couple of men who are very expert at indicating what bits of rock will serve for paving blocks, and a small special gang works under them for that purpose. There are a couple more men who are skilled in working the rifts, and they follow the large blasts with their crow bars, and it is interesting to see how quickly and with what little effort they split apart huge boulders into layers suitable for the block workers.

Any stone that is not good enough for blocks is fed to the crushers. A 1½ in. cable whisks the car up a steep incline to the hill where the crusher house is situated, and where it is dumped into the hungry jaws of an Austin crusher, which delivers



GETTING OUT PAVING BLOCKS AT QUINN-ROY QUARRY, STATEN ISLAND, N. Y.

a steady stream of material to the line of waiting wagons beneath.

Mr. Quinlan said that the very hard nature of the rock was a severe strain on the crusher, but it had stood up to the work nobly, and since it was put in, April 1, there had been but one slight break down, and counting all stoppages of labor, holidays and repair days only two working weeks have been lost.

The quantity turned out by the crusher varied from day to day according as the output ran suitable for blocks or otherwise; but with a yield of

10,000 to 11,000 paving blocks per week it left a remainder to go to the crusher, yielding about 180 yards of all sizes per day. This is a very easy day's work with occasional halts, when the whole output below will go into blocks, leaving nothing for the crusher. But on the other hand there have been days when luck was against the paving stone end of the work, and all that was blasted out had to be sent to the crusher, and then it became a question of pushing the crusher hard to get rid of the mass, and on such occasions it has reached as high an output as 40 yards per hour. It took but a moderate amount of power, and at present it was the only crusher running, the others being again out of commission.

Mr. Quinlan practically does nothing in dimension stuff, and never stocks up with any, but occasionally he will take some special orders for a quantity. On the ground were two fine blocks, one about 12 feet square (in a direct line right behind the horse and wagon), and the other about 7 feet square, which would work up nicely into dimension stock, but Mr. Quinlan was not going to wait very long for orders along that line, but just as soon as his two crowbar experts could get at them they would split them for blocks.

But there is one point concerning the quarry that calls for special mention, namely, the proximity of a concrete hollow block factory next door. Quarrymen are beginning to recognize the practical utility of such an arrangement and are encouraging it, and the economical advantage of it is shown here.

There is absolutely no waste there at all. Between the various kinds of concrete work, and asphalt and road making stone, all sizes of the crush are taken; and the very smallest remainder, together with the waste dust, goes across the road to the block maker, so that, as Mr. Quinlan said, not a pound of stone was lost.

He thought this was the only quarry in New York City turning out such steady work. There were other quarries in Staten Island that used to be worked occasionally, but since the island became a part of Greater New York, there were so many restrictions put on quarry working, the licensing, handling and storing of powder, etc., that they had practically ceased operation.

Golden & Son, have purchased the plant of the Des Moines Marble and Mantel Co., of Des Moines, Iowa. They will operate the plant on a large scale.

The Advance Stone Co., Towson, Md., has been incorporated with a capital stock of \$10,000.00. Nicholas H. Register, Andrew Nagengast, Joshua Bedenhart, Henry M. Maas and Eugene Bergel are the incorporators.

The California Cut Stone Co. has been organized at Chicago, Ill., by Joseph Kasper, Rudolph Stocking, A. C. Kasper, with a capital stock of \$25,000.00. The company will do a general contracting business.

The Rankin & Ross Co., Brooklyn, N. Y., has been organized to deal in dressed and cut stone, with a capital stock of \$35,000.00. James Ross, James D. Rankin, Chas. L. Clark, John Crinckshank and David Gawans are the incorporators.

The Delaware Stone Co. has been organized at Columbus, Ohio, with a capital stock of \$10,000.00. The incorporators are: Henry Smith, J. W. Smith, E. C. Kissinger, Lester Burrell and A. F. Leaf.

The Baltimore Stone Cleaning and Sand Blast Co., of Baltimore, Md., has been organized with a capital stock of \$5,000.00. The incorporators are: David S. Saaun, John R. Kensett, Jas. T. Brady, John W. McCleary and Lucien T. Odendhall.

The Laurel Hill Bluestone Quarry Co., of Ligonier, Pa., report a large demand for their output. Considerable stone is being shipped out and they will soon increase their force.

John Helmleach and Thos. Murray have purchased about twenty acres of land at LeRoy, N. Y., and will operate a quarry. A number of improvements will be made and a crusher installed. Both are experienced stone men.

The Advance Quarry Co. has been incorporated at York, Pa., with a capital stock of \$5,000.00. Those interested are: E. Borgel, York, Pa.; H. L. Maas, J. A. Degenhardt, A. Nagengast and N. H. Register.

The Central Quarry Co., of Waco, Texas, has been incorporated with a capital stock of \$10,000.00. W. J. Neale, O. N. Wiel and John F. Reeves, are the incorporators.



# Granite.

## BARRE, VERMONT.

BARRE, Vt., November 20.—Frank G. Wheaton, a popular and efficient granite office man, who has been employed in the office of McDonald, Cutler & Co., for a long time, has accepted a position with E. P. Coleman, general manager of the Wetmore & Morse Granite Co., at their office in Montpelier.

George Gray, formerly of the firm of Milne, Clarithew & Gray, has sold his splendid residence in Barre to George Stralton, another very successful granite manufacturer. This residence, which is one of the very finest in Barre, has always been the home of some leading granite manufacturer. The late George C. Mackie, who owned the enormous plant now owned by Barclay Bros., was the first owner, and after his death it was sold to Mr. Gray, who, since selling out his granite interests here, intends to return to Scotland. The house was built by Mr. Mackie to resemble a Scottish castle.

William Jack, a well known local monumental contractor, has gone to his former home in Scotland to spend the winter.

John E. Sullivan, the well known granite manufacturer of Hardwick, has been on a Western trip this month.

### One of Large Proportions.

A large boiler was taken a few days ago from the plant of the Lane Manufacturing Co., in Montpelier to the new A. C. Blanchard quarry in Barre. It required twelve horses to haul it and the heavy load broke the stringers of a highway bridge between this city and Montpelier.

It would seem that Barre granite had been sufficiently used and sufficiently advertised so that even the most ignorant classes in the most remote part of the country would always think of the word "Granite" whenever the name "Barre" is mentioned. And yet only a few days ago one of Boston's leading daily newspapers made a supposedly brilliant editorial crack when, in speaking of the spire on the Joseph Smith monument being 38 ft. 6 in. high as representing the age of the Mormon prophet; the scribe artist went on to say that the fact that Joseph died while yet a young man saved the Mormon church "both money and marble." Here's a chance for the retail dealer to get busy and educate even the newspapers, if necessary, that Barre granite monuments are not made out of marble. Some wholesale dealers may be wont to call a spade a heart occasionally, but even they have never gone so far as to palm off granite for marble, or vice versa.

### Another Change of Firm.

A quarry deal of considerable importance to the trade was consummated this month when the Bessey Granite Co., a well known manufacturing firm became half owner in the Wildbur quarry. The transaction came about in this way: Robert Wildbur sold his quarry to Wildbur Bros. for a consideration of \$10,000.00. The latter then sold a half interest to Prince M. Bessey and Charles F. Bessey, both of the Bessey Granite Co. Wildbur Bros. are to conduct the quarry as heretofore and the Besseys will attend to the business end of it. They expect to put in a large air compressor at once and a fifty ton derrick in the spring. This is an excellent quarry property and the new firm is making plans to do an extensive business. The output of the quarry has been increasing very rapidly during the past two years, and with the added equipment now under consideration the increase will continue much more rapidly.

### To Make Improvements.

The Barre Granite and Quarry Co., held a directors meeting at its Boston office a few days ago and elected F. A. Cragg, of Barre, general manager of the company, the same to take effect immediately. The company is said to be in excellent condition, and it is understood that within the next few months will spend several thousand dollars on improved machinery on the property. The

first quarterly dividend of 2 per cent has just been paid to stockholders of record October 1. Walker & Gallison, civil engineers, recently surveyed the property, fixing the boundary lines and discovering that instead of having, as they supposed, 32 acres, the company has an actual property of over 46 acres, making one of the largest quarry properties in this section. The company has surely set out to do a quarrying business on business principles.

Many readers of Rock Products will recall having done considerable business a few years ago with the Barre manufacturing firm of Abbott & Carpenter, of which William A. Carpenter was a partner. The firm went out of existence a few years ago. Mr. Carpenter has been ill with consumption since some time previous to then. He finally succumbed to the disease this month, and died at the age of 46 years.

### Well Known Man Dead.

Sam Novelli is dead. A telegram received by his friends here about the middle of the month brought the news from his former home in Sunny Italy, where he has been spending the past eighteen months in the fond hope of regaining his lost health, but consumption had too strong a hold upon him before he left the stone shed. Mr. Novelli was one of the best known Italian carvers of granite in the whole world, for it was he, as a member of his firm of Novelli & Corti, who cut the beautiful statue of Robert Burns which stands on the Spaulding High School grounds, of Barre, and which is generally conceded to be the finest of the kind ever done in granite. His business partner, Elia Corti, was shot in an unfortunate affair in Barre three years ago and the statue on the famous monument to his memory which now stands in Hope cemetery, and which is said to be the closest rival of the Burns monument, was the work of Mr. Novelli. After the death of Mr. Corti, Mr. Novelli associated himself with another well known carver under the firm name of Novelli & Calcagni, and Mr. Calcagni has conducted the business for the past year and a half as he will do in the future.

Many sad incidents have been connected with the life of Mr. Novelli since the creation of his masterpiece in the cutting of the Burns statue, among them being not only the tragic death of his much beloved partner, but his devoted wife became violently insane about five years ago and tried to commit suicide by shooting herself with a revolver. She quite miraculously survived the effects of the bullet wound, however, but has been violently insane ever since, and is confined in an asylum in Massachusetts.

Here's the latest in the granite industry as told by the *Gazette*, a bright local paper of Hardwick: "Rev. J. A. Dixon began work at the Woodbury Granite Co.'s shed Monday morning. The *Gazette* can say that it is not over-zealousness on the dominie's part to do manual labor, or a desire to develop his might to combine with eloquence in his religious work, but Mr. Dixon is unfortunately troubled with insomnia and it is upon the doctor's recommendation that he takes this course. This is the first time the writer has ever heard of a granite shed being put to use as a sanitarium."

### Banquet to George H. Gilman.

A newspaper published in Claremont, N. H., contained in a recent issue an item regarding Geo. H. Gilman, the young inventor of the Gilman plug drill, as follows: "A complimentary banquet was tendered Mr. George H. Gilman by some of his intimate friends among the young men of the town, at Hotel Claremont, Tuesday night. Mr. Gilman is the pneumatic drill expert of the Sullivan Machine Co., and has a wide popularity. This banquet was a delightful affair. Harry E. Harvey was toastmaster and the speech of the evening was made by Attorney Leon E. Paige, who concluded by presenting Mr. Gilman a fine Masonic charm in behalf of the company present."

### Have Gotten Settled Now.

The Boutwell-Milne-Varnum Co. have got their new office building and stock yard in Barre completed and have just moved their office furniture from the old quarters in the Langdon building at Montpelier. The moving of the mammoth safe out of the Langdon building was watched with great interest by a large crowd of people.

E. B. Doran, a monumental dealer of Dallas, Texas, who was in Barre some two months ago, and ordered considerable work from different manufacturers, has been adjudged insane, according to a letter received here from his brother, F. H. Doran. His business affairs have been placed in his

brother's hands for settlement. He is now going through them. From present indications, however, they seem to be in very bad shape.

Business at the quarries of the Barre White Granite Co. is very brisk at this time in shipping stone to Brooklyn for a large building that is being erected by Contractor John Haynes, of Brooklyn. The stock is brought to the railroad by team, eight loads being brought down daily. It is shipped by rail to Troy and at that point is loaded on a barge and transported the balance of the way by water. About eighteen carloads are required for a barge load. Mr. Haynes, who was in town recently, said he considered the Barre white stock an exceptionally fine building stone.

### Look for a Boom.

The granite world is looking forward to a big boom in the granite building trade at the Bethel quarries in the very near future. Since the opening of the quarries there three years ago transportation from the quarries to the railroad five miles away and down one of the steepest hills and worst roads in New England, has been entirely dependent upon teams. This is doing business under difficulties and at times the roads have been so bad that no rough stock could be gotten to the cutting plants at all. The stone is a beautiful white stock, the whitest granite known, and the immense mountain where it is quarried is practically all owned by two big companies, the Woodbury Granite Co., who also have a big cutting shed there, and the E. B. Ellis Co., whose sheds are in Northfield.

To the hustling men of these two companies it became evident some time ago that the solution of their Bethel problem was the construction of a railroad connecting the quarries with the main lines. The plan was consummated without delay and early last May the work of building the new railroad was begun, the same to be known as the Bethel Granite Railway.

The work has been pushed rapidly all summer and it is now practically completed, so that by the time this issue reaches the public, freight cars drawn by ordinary locomotives will be carrying white granite from the Bethel quarries. The road is over five miles in length and runs from a point on the main line of the Central Vermont Railway, near the Bethel cutting plant of the Woodbury Granite Co., up the side of the mountain to a switchback, and thence to the quarries. The quarries which are reached by this new road lie about 700 feet above the village of Bethel where the road starts and the grade is about 185 feet to the mile. The Bethel Granite Railway is the third mountain railway to be built in Vermont, the others being from Barre back to the Websterville and Graniteville quarries, and the one from Hardwick back to the Woodbury quarries.

The Hardwick conspiracy case, while it did not create much of the sensation at the outset, bids fair to become as famous in the legal circles of the State as did the well known Patch case of Rutland. The arguments have been completed before the Supreme Court, but a decision has not been given yet. The case has never been tried in the lower courts but was carried at once to the Supreme Court. The title of the case is State vs. James Duncan and others. Duncan is National Secretary of the Granite Cutters' National Union, and the other ten are members of the local branch of the same union at Hardwick. The State alleges conspiracy on the part of eleven men to unlawfully interfere with the business of certain granite manufacturers. It was alleged that Duncan and others used threats in their efforts to have the firms employ union men. When the case was brought before the grand jury, the men refused to testify on the ground that they would be incriminating themselves. The State attorney entered a demurrer and the demurrer was sustained.

### A Sad Affair.

One of the saddest things that Rock Products has ever had to chronicle is the death of Fred B. Mudgett, which occurred early in the month after a short illness, with acute nephritis. He was taken ill on the day when he was to start for Albany, N. Y., to take up the duties of general superintendent of the Flint Granite Co., to which very lucrative position he had just been appointed, and after a painful illness of twenty days he breathed his last. Twenty-four years ago he came to Barre when the industry here was in its infancy. He was first engaged as superintendent of the plant of Dunham & Gordon, which was one of the few firms then doing business here. Later he was foreman of the National Granite Co., and in 1890 began work for W. H. Harrison, continuing as su-

perintendent of the Harrison Granite Co., until the day before he was taken ill. He was acknowledged to be one of the most efficient business men ever connected with the granite industry. He leaves, besides a father and mother, Mr. and Mrs. Joseph G. Mudgett, of Barre, a wife and two daughters, and one brother, E. A. Mudgett, of San Francisco, who reached Barre before his brother's death.

#### Famous Monument Completed.

The famous Mormon monument, to the memory of Prophet Joseph Smith, founder of the Mormon faith, is now set up at Royalton. It is probably one of the most famous monuments ever cut in Barre granite. The spire is the largest all polished spire that has probably ever been shipped from any granite cutter. It was quarried by the Boutwell-Milne-Varnum Co., and weighed in the rough about sixty tons. After it was cut and polished it weighed forty-five tons. It is 4 feet square at the base and 3 feet square at the top, and is 38 feet 6 inches high, marking the age of Joseph Smith, who was 38 years and 6 months old. The base of the monument is 12 feet square. The second base is 9 feet square, the die is 6 feet square and 6 feet 2 inches high and the cap is 7 feet 4 inches square. With the exception of the cap the entire structure is extremely plain. The cap is moulded. Every bit of exposed surface is polished. With no carving whatever, the smooth surface of the monument is broken only by the sunk letters on the cap and on the die. The front of the die bears the dates 1805-1844, and the rear surface an inscription that will not be made public until the day of unveiling.

The contract was let to the R. C. Bowers Granite Co., of Montpelier, and this company has had the responsibility of getting out the mammoth structure. The cutting contract was sublet to Barclay Bros., and work commenced on it three months ago, and although it is not actually set up at this writing it will be before this issue of Rock Products goes to print. The difficulty of cutting and polishing such an immense spire and getting it to its destination without a blemish can easily be understood by all granite men, and much credit is due to Mayor Barclay who has personally supervised the work in Barclay Bros.' plant. W. F. Howland, the Barre man who became famous in the erection of the Church of St. John the Divine in New York, supervised the setting of the monument which rests on a solid masonry foundation and rises to a height of 51 feet 2 inches. James F. McNeill, of Syracuse, N. Y., had the contract for transporting the parts from the South Royalton station to the site five miles away. Horse power was found inadequate early in the game and the moving had to be done entirely with a system of pulley blocks. Most of the distance the road was up a very steep and long hill.

W. W. Parry, of Parry & Jones, left to-day for a three weeks western trip among the dealers. Will says business is pretty dull this month and is liable to be so until after the holidays.

John E. Smith and Donald Smith, of E. L. Smith & Co., have sold their famous trotting mare, Lady Laurin, and left this week on a western business trip, together. John spoke of going down into the blue grass country. Well, they've got some good thoroughbreds there but it will be hard to replace Lady Laurin in the hearts of the Smith family.

The Joseph Smith monument has brought to light the fact that another even more imposing monument is soon to be erected near Brattleboro, Vt., at the birthplace of the late Brigham Young. It is understood that delegates from the Mormon church were in Brattleboro some time ago looking over the records and that they finally found and marked the site of Young's birthplace and that before they returned home, stated that they would some day erect a monument there. That was several years ago.

R. A. Fairbairn, of the Harrison Supply Co., of Boston, has been in town this week, and they say he has made the shot fly thick and fast among the consumers. Mr. Fairbairn expects to visit Barre every month.

E. L. Smith & Co. report business as a little dull this month but they have booked several orders for spring delivery and expect a good year.

#### Association Matters.

Secretary James Campbell says he has got two big things on his mind just now outside of his own business. He is trying to get that insurance matter straightened out, either to get better rates from the various companies, or to form an assurance society of their own among the association. The other thing that is troubling Jim is that

the new information bureau of the National Association has caught Barre and struck in. It is working both day and night, and Jim is wondering where he is going to land. Every manufacturer in Barre sees what there is in it and they are taking advantage of it.

Smith Bros have moved to the plant formerly occupied by Rizzi Bros. Parry & Jones have moved to the plant adjoining, and Novelli & Calcagni have moved from the Marr & Gordon circle to the plant vacated by Parry & Jones.

James Galli, of the firm of Magnaghi & Galli, has gone to his former home in Italy to remain for a month's visit until after the holidays. The firm is getting out a lot of new designs which they expect to send out to the trade soon. They are all original designs in high class carved work for which Magnaghi & Galli are famous.

Chas. Bianchi & Sons have got everything running in fine shape at their new plant, and are getting out some nice work. They are cutting two statues and a lot of artistic carved work. They are employing eighty-five cutters now.

Fred W. Feagan, of E. Abbiatti & Bros., has gone on a Western trip for the firm and intends to spend a good old blue grass Christmas at his former home in Kentucky.

Angus L. McLeod has withdrawn from partnership in the granite quarry business with L. C. and W. E. Beck, and Guidici Bros., doing business under the name of the Barre Quarry Co.

#### MONTPELIER, VT.

MONTPELIER, VT., November 21.—Fred J. Robar, the well known granite manufacturer who bought the Kane cutting plant some time ago, and who has been putting in considerable improvements there, has taken a partner, Otto Johnson, forming the firm of Robar & Johnson. Mr. Johnson is a practical man in the business as is Mr. Robar, and they will make a good team. They expect to employ about thirty-five men and keep the plant going to its full capacity in getting out first class work.

G. R. Bianchi, head of the granite cutting firm of that name, has completed his splendid new shed in Montpelier and has gone to his former home in Italy for a few months' visit.

H. J. Bertolli has been awarded the contract of doing all the carving on the Guarantee and Trust Co. building, in New York. The structure itself

will cost about \$100,000.00 and the carving about \$5,000.00. Mr. Bertolli has two plants in full operation, one in Hardwick and one in Montpelier. He employs twenty-five men in the Hardwick plant where all the carving is done, and fifteen men in Montpelier where all the fine sculpture work is done. He is completing for New Jersey parties a soldiers' monument, having five soldier figures standing 11 feet high, and a beautiful statue of "Memory" for Chicago parties. He has completed and shipped to Marshall, Mo., an equestrian statue of Gen. Sheridan, the figure of the celebrated General being 8 ft. 4 in. high.

#### To Establish Large Plant.

CLAYTON, N. Y., November 27.—We are to have a new industry in the very near future, as Mr. G. G. Emery is making great preparations to establish his large granite works in this town. Work is now well under way for the erection of a large building, 100x400 feet for polishing granite. This will be one of the largest concerns of its kind in the country and Mr. Emery has also made extensive improvements on Calumet Island, as the rapid increase of his business in the past year has necessitated his making these changes.

#### A Severe Loss by Fire.

AMBERG, WIS., November 18.—The large plant of the Pike River Granite Co. was almost entirely destroyed by fire a short time ago. The polishing mill and engine room were completely ruined and much valuable machinery was so badly warped by the heat as to be rendered practically useless. It required several hours work by a great many of the residents here to get the fire under control and save even a small portion of the plant. This company was organized some years ago by local parties, who have built up a large and prosperous business. The loss is estimated to be about \$5,000.00 and no insurance. It is the intention of the owners to rebuild the plant and add a number of improvements. It is believed that the work will be begun within a short time. Since writing the above it has been rumored that the company may move its plant to Green Bay on account of its shipping facilities, which are said to be very much greater than those of Amberg.

Samuel Batchelder, Bangor, Me., has just uncovered an immense deposit of white and pink granite at Prospect, Me. The quarry will be opened in this location in the very near future and a number of men employed in the operation.



WILL CONGRESS HELP SOLVE THE PROBLEM?



## CONSOLIDATED QUARRY CO.

## Immense Organization of Granite Interests at Barre, Vermont.

One of the biggest quarry deals that have ever taken place in Barre formed the Consolidated Quarry Co., this month incorporated under the laws of the State of Vermont, with a capital stock of \$500,000.00, and with four of the biggest light quarry properties in Websterville and with a list of officers and owners who constitute some of the most successful men in the granite business.

The officers are: John W. McDonald, president and general manager; C. A. Worden, vice president; F. T. Cutler, treasurer; D. W. McDonald, superintendent. There are but six stockholders, including the four gentlemen named above, and also F. A. Owens, of Dansville, N. Y., and W. M. Gilboy, of Batavia. The deeds were passed on the middle of the month and the new company took possession November 20.

By this transaction the light quarries of McDonald, Cutler & Co.; Worden Bros., and Marr & Gordon are merged into one corporation and under the management of the officers just mentioned. The quarries all join each other and each of them has been known for years as among the very best light and medium quarries of Barre. Marr & Gordon completely retire from the quarry ownership. The combined quarries cover 64 acres of quarry land, most of it being already opened, and have been operated from 15 to 18 years each. The Marr & Gordon quarry was opened by Mann Bros. in 1886, the consideration at that time being



C. A. WORDEN, VICE PRESIDENT.

\$1,500.00. One of the brothers tells the story of how in the early days they quarried a large base for a firm and it cost them \$300.00 to transport it from the quarries to the city. That was before the quarry railroad was built. In 1894 Mann Bros. leased the quarry to Marr & Gordon for five years for \$9,000.00. A short time after that the firm purchased it for \$20,000.00. Eleven years later, being the present month, it is understood they received several times that figure for it by the new company.

The quarries of McDonald, Cutler & Co., and Worden Bros. were opened at about the same time, the latter having been formerly known as the capital quarries. The former was purchased by J. W. and D. W. McDonald about sixteen years ago, and they have operated it ever since with great success, for the first eleven years as J. W. McDonald & Co., and for the past five years as McDonald, Cutler & Co. This quarry has a \$50,000.00 equipment and a quality of stock that is known wherever Barre granite is cut or sold.

The new company intend to put in a central plant to operate all the quarries together, greatly reducing the cost of production and increasing the capacity of output. The offices of the company will be located in the city and for the present at the office building of McDonald, Cutler & Co.

The officers of this new company represent two ends of the granite monumental trade, the quarry-



J. W. McDONALD, PRESIDENT AND GENERAL MANAGER.

ing and manufacturing end and the retail business. While the firm of McDonald & Cutler is one of the most successful, reliable and widely known of the quarrying and manufacturing firms of New England, so is Mr. C. A. Worden, the head of the retail firm of Worden Bros., at Batavia, N. Y., one of the biggest and most successful of the retail monumental dealers of America. The other two stockholders are connected with Worden Bros.

John W. McDonald, president of the Barre Granite Manufacturers Association, treasurer of the Barre Quarry Owners' Association, and president and general manager of the Consolidated Quarry Co., was born in Canada. Twenty-four years ago he left his home there and came to South Ryegate where he learned the granite cutters trade, being one of the pioneers. Three years later he came to Barre and entered the employ of Wetmore & Morse. Later he worked as a cutter for McDonald & Buchanan, and in 1887 formed a partnership with J. W. Kidder and went into business for himself. In 1887 his brother, Daniel W., who had come to the states previously, became a partner in the firm which was known as J. W. McDonald & Co., and they then bought the famous quarry which they have ever since operated. This quarry had been opened before this by William Magee. Eight years ago Mr. Kidder went out of the firm and six years ago the McDonalds bought out the interest of W. N. Burnham in the cutting firm of Cutler & Burnham, Mr. Cutler taking an interest in the quarry, and the firm becoming McDonald, Cutler & Co. Besides the prominent positions Mr. McDonald has held in the stone business he has taken an active interest in civic affairs, and during the years of '97 and '98 was one of the city's aldermen. The history of Daniel W. McDonald has been linked more or less with that of his brother. He came to Barre nineteen years ago, and learned



F. T. CUTLER, TREASURER.

the trade of granite cutter from E. L. Smith & Co., where he was employed until he formed the partnership above referred to in 1889. Like the other members of the firm he knows every branch of the granite business. He and his brother are both members of St. Aldemar Commandery, and of Mount Sinai Temple. Mr. McDonald is superintendent of the corporation.

Fayette T. Cutler is one of the leading characters in connection with the Barre industry. He it was who performed the remarkable engineering feat near Syracuse last year in moving that immense boulder, and is one of the actual pioneers who saw the Barre industry start away back in the seventies. He has watched it grow and has stayed right with it until he stands at the top. Twenty-eight years ago Mr. Cutler began to learn the trade from Wetmore & Morse, when there were less than a dozen stone cutters in Barre. He worked for this firm for four years and then became foreman for White Bros. After holding this position four years he had a better offer from Wetmore & Morse, and for the next three years he was their foreman. Nineteen years ago he formed a partnership with W. N. Burnham, and they built the cutting plant, which, until six years ago was known as Cutler & Burnham's, and which McDonald & Cutler own to-day. Mr. Cutler was for two years alderman of the city and was for some time superintendent of streets. Mr. Cutler is treasurer of the new corporation.

The firm of McDonald & Cutler have built many famous soldiers' monuments, mausoleums and other notable monumental structures, among them being



D. W. McDONALD, SUPERINTENDENT.

the Judge Adler mausoleum at Albany, N. Y. Among the work they did last year were three monuments that amounted to over \$15,000.00.

Charles A. Worden was born near Syracuse, N. Y. His father was a retail monument dealer there for over forty years in the firm of Boynton & Worden. When a young man Mr. Worden learned the trade of granite cutter at his father's plant. Soon afterwards he left there and went to Dansville, N. Y., where, with his brother Fred, the firm of Worden Bros. was established to carry on a retail business. This location proved a good one, the business grew, the brothers succeeded and continued for twenty years. Last year C. A. Worden purchased his brother's interest, and an immense cutting plant 350 feet long was built at Batavia, N. Y., being not only the largest retail plant in the country, but one of the largest monumental granite plants of any kind. It is up to date in every way and can use 125 men. The firm at Batavia is now a corporation, of which Mr. Worden is the head. They have offices and show rooms, besides this at Rochester, Buffalo, Hornellsville, Palmyra and Dansville. Mr. Worden purchased the capital quarries in Barre about a year ago, and is the vice president of the new corporation here.

W. M. Gilboy, of Batavia, is the secretary of the Worden Bros. Co., and is a practical cutter and salesman.

F. A. Owens, of Dansville, N. Y., another one of the stockholders, is connected with the Worden Bros. Co. as a stockholder.

## QUINCY, MASS.

QUINCY, MASS., November 28.—There has been a great falling off in the volume of business done in the granite industry here during the past month. This is noticeable from the fact that the spring and summer trade has been unusually large this year and the sudden slump has prompted not a few manufacturers to square off work on the orders for delivery in the spring of 1906, weeks in advance of ordinary years. November and December in the monumental district are usually quiet months. The period is known as between seasons time, and usually work on spring orders of the succeeding year is not under way until after the holidays. This year in many yards work on these orders will commence earlier, as the majority of manufacturers do not want to deplete their working force. The present lull bids fair to be short lived, as figuring on spring work and the placing of orders is brisk.

The weather has been favorable in every department of the trade. The quarrying has been carried on under most favorable conditions. Many manufacturers seized the opportunity the good weather presented and filled their yards with rough stock for winter manufacture, in anticipation of rough weather setting in at any moment. A tour of the manufacturing district found some complaining for yard room. They were those who stocked up preparatory to the closed season in the quarries. Heretofore stock shortage has been a serious bane to the trade, particularly during the cold weather.

Conditions are such now that a manufacturer can place his order with a quarry owner with the knowledge that any size of rough stock will be in his yard within a week from the time the order is given. Formerly, owing to the stress of weather, such delivery has been delayed for months.

What has proved a serious detriment to Quincy work in the past, and which has taken a new lease of life is the injudicious advertising of the home product. Reference is made to the several trade journals who give liberal space in their columns in exchange for finished work, which in scarcely a single instance would be accepted by the average dealer.

Any old kind of a marker or monument can be palmed off in payment for a splash advertisement. Complaint came to the writer from every side. One manufacturer was more than emphatic and threatened to use force if a runner for the latest journal of its kind took up any more of his time. "It is an evil," he said, "which should be stamped out at once, as the honest manufacturer can not hope to compete, much less get an honest price for his work when jobs of an inferior kind are spread broadcast on the country." Continuing, he said that the jobs given in exchange for such advertising are bound to work to the detriment of the home product.

As an advertising medium they are absolutely worthless. In exchange for a condemned monument, space can be obtained in these journals which would lead the retailer to believe that the firm has a modern, up-to-date plant. Often, in reality the partners, never any more than two, and bunglers at the banker are trying to eke out an existence in the manufacturing field, often cutting their work under an apple tree. The multiplicity of such graduates from the banker, who prefer an abundance of work to little or no profit, has injured the manufacturer who has expended thousands of dollars in the equipment of a plant, and has brought the finished product into ill repute.

There is little of importance to chronicle in the affairs of the Quincy Quarries Co., who, over a month ago, were placed in the hands of a receiver. Ellsworth Morgan has examined the books in the interest of the creditors, but at this writing no report has been made. The company's quarries were worked to their capacity in getting out stock for the Carnegie Building in Pittsburgh at this period, and the manufacturer had to seek elsewhere for his stock for monuments. The orders were promptly filled by the independent quarry owners, and to date they have managed to hold the trade. The Merry Mount Co.'s quarry has been worked to its capacity and some excellent stock has been mined. This is true also of the property of C. H. Hardwick, J. Galvin, Field & Wild and J. C. Ballou, while over "on the mountain" in West Quincy the Granite Railway, Jonathan Swingle and T. F. Man-nex. Extra dark quarries have had the bulk of orders for their prime stock. In the tour of the quarries Badger Bros. needs more than passing mention. Through commendable effort this quarry is now in fine working order, and some A 1 stock is being produced. Over in New State (East Milton) the quarries are in excellent shape and

they have received liberal orders from the Quincy manufacturers.

In a tour of the manufacturing field every manufacturer was confident of a good spring season. At the plant of James Craig & Co., in South Quincy, every sign of prosperity was evident. A new Ingersoll-Sergeant air compressor, 58 h. p., has lately been installed. At the first call Mr. Craig was absent on a business trip through Connecticut, but when the writer met him on the second call he was hopeful of a prosperous year in 1906. Owing to an increase of his Quincy business Mr. Craig intends to sell 50 acres of quarry property in Niantic, Conn. There he owns a quarry which yields a golden pink granite that has a ready market. He was inclined to welcome the present lull in the Quincy end of his business, as it will give him some breathing space and time to superintend the affairs of his local plant. During the past season he has found ready work for two surfacing machines which greatly expedites the shipment of many orders.

McDonald Brothers, on Water Street, have found business unusually good. Though there has been a lull, is not apparent in this yard as every available man is at work. Mr. John A. McDonald has only a hopeful look toward 1906, as many spring orders have already been placed and his spare time is taken up figuring the bulk of orders which are daily arriving.

A. Marnock & Co. have under way one of the largest monuments which has been placed in Quincy for some time. When completed it will stand 25 feet high and will be fashioned from medium Quincy.

The design is a praiseworthy one and shows elaborate carving. It will stand on a 7 ft. base and consists of base, die plinth and cross. Four sides of the die will be polished, as also the four solid columns. The carving will not be stinted, and on completion will redound to the credit of this enterprising firm. Besides using home granite the firm has built up quite a trade in Westerly stock which has been fashioned into monuments of large size.

A. Mainatti has work sufficient in his manufacturing plant in Quincy and makes weekly trips to his quarry property in Connecticut. The stock is of a golden pink color and has a large market.

A. Mundle has had a prosperous year and is confident of 1906 surpassing the present year in the number of orders placed. Already spring work is being placed and figuring on new work is being daily attended to in the office.

J. R. Qualey had only one fault to find with his business. He is cramped for yard room, and if his orders continue to come in, will have to spread out so as to adequately handle his increased business.

James Malcolm, on Brook Road, has had a prosperous year and finds work for an extra large Koten surfacer.

William Spargo's plant shows signs of increased activity. He has had his share of work of no mean dimensions, and at present is finishing up the season's work, preparatory to commencing upon his spring orders.

Forbes, Craig & Co., on Gilbert Street, have found it necessary to put an addition to their polishing mill, which is run in conjunction with their manufacturing plant. The addition will be 30 ft. square and rigged with a traveling derrick, which will greatly aid the speedy handling of large and small work. He is taking advantage of good weather and will commence his improvements at once.

Fred Barnicoat pursues the even tenor of his way in the manufacture of elaborate statues from Westerly granite. This, with his large monumental business, keeps his large force of men constantly at work, so that there is scarcely any depression in his business.

Same can be said of A. M. Deane & Co., who are constantly adding improvements to their plant. At present the firm has nearly completed a large stable which will house their draught horses and have them handier to the plant than formerly.

John R. Richards reports an unprecedented spring and summer business. He has ready for shipment a handsome all polished sarcophagus of Quincy medium granite of no mean dimensions for Lowell parties.

The Smith Granite Co. is busy and have been for months past. Some improvements have been made to the plant, which include a commodious engine house, which encloses an up-to-date gasoline engine.

The Quincy Column Turning Co. has just shipped the last of the columns of Jonesport, Me., granite, all polished for the cathedral in process of construction in Denver, Col. A contract was closed the day Rock Products' representative called for

the turning and polishing of a series of columns for the Winnsboro, N. C., Granite Co. This plant is well equipped for the handling of large work.

Accidents seem to follow in close connection at the Jonathan Swingle quarry. Last month a fire consumed his engine house and put out of commission his engine. On Saturday, the 18th inst., a large derrick on the bank of the quarry toppled into the hole, slightly injuring one of the workmen. These accidents tended to put a quietus upon the delivery of the concern's increasing business, but Mr. Swingle was up and doing, and lost no time in repairing both injuries to the plant. These are only preliminary to more important improvements the firm intends to make as soon as business will permit.

Field & Wilds' new air compressor is accomplishing much at the firm's busy quarry and cutting plant. Mr. J. Q. A. Field has made frequent business trips to New York City and reports the booking of several important orders. He promises Rock Products' representative a unique design in the way of a cemetery memorial for the reception of the ashes of those who are cremated. The job has been placed with this firm, and when completed will bear extensive illustration.

Falconer & Co. are busy in the wholesale line. The firm has a commodious office on Water Street on the threshold of the manufacturing district, and have placed and shipped some large first class work to date.

The Eagle Polishing Co. know no dull season, and are ever on the alert polishing large and small work for a large number of customers.

Alexander Clark is already using his large new shop for the manufacture and repair of granite tools. The building is admirably located and is 100x30 ft., divided into two parts. On entering there is a nicely appointed office and show room, back of which is the work shop proper, where every kind of modern machinery is in use.

The plant of the Old Colony Trap Rock Co. was totally consumed by fire on the night of the 23d inst. The plant was abandoned, and previous to the conflagration several attempts to fire it was made. The last attempt was successful and was undoubtedly the work of an incendiary.

Everything is running smoothly at the Charles A. Swingle & Co. manufacturing plant in South Quincy. The firm had an unfortunate accident a month ago which delayed them in the shipment of orders. Their traveling derrick was put out of commission, which retarded them somewhat in loading the finished work upon cars. An incident which speaks volumes for the careful work done here was brought to the notice of the writer when he called. A short time ago the firm shipped to Warren, Ohio, an all-polished extra dark Quincy sarcophagus. It had not been in the cemetery but a short time when a duplicate order came even to the name. The job was very pleasing to the eye and came up to every expectation. A brother of the one for whom the first job was made ordered its duplicate instantly which has just been shipped.

William McLeod will build a new polishing mill off Center Street.

A. R. Perkins, of Utica, N. Y., was in town the past month and will represent the C. A. Swingle & Co.'s interest as far West as Denver, Col. Heretofore the firm has been represented from Maine to Virginia, and as far West as Ohio.

Smith & Marshall are not worrying over the lull in business, but are finishing up the season's work preparatory to commencing their large spring work after the holidays.

Among the visiting granite men during the past month were L. L. Manning, Plainfield, N. J.; D. R. Stoddard, Liberty, N. Y.; W. H. Houp, Marion, Ohio; Buell Bros., Wilmington, Vt.; Lewis Ken-gott, Newark, N. J.; H. A. Barnhart, of the Barnhart Granite Co., Chillicothe, Ohio; W. E. DeClark, Spring Valley, N. Y.; Martin O'Connell, Minonk, Ill.; E. J. Kissling, Newark, N. J., and R. J. Haight, of the Monumental News, Chicago, Ill.

Hughes & Johnson are busy in their new and commodious plant but five minutes walk from the Quincy depot. The firm has not spared expense in the erection and equipment of their new cutting shed. The derrick is supplied with power and everything is adapted for the speedy handling of large work. A large office fronts on Granite Street and here the caller is welcomed by Mr. Johnson, while Mr. Hughes personally sees to work in every grade of manufacture.

The amount of rough and finished granite shipped from this city during the month of October was 14,572,030 pounds. Said amount was distributed as follows: West Quincy, including Quarry Railroad, 7,393,845 pounds; Quincy Adams, 7,178,185 pounds.



### The Placer County Granite Quarry.

SAN FRANCISCO, CAL., November 19.—One of the leading granite quarries of California is located in Placer County, near the little town of Rocklin. Regarding the question of transportation, this quarry is well situated, as it lies near the Central Pacific railroad. The company owning the quarry have built a spur leading from the main line up into the ledge. For nearly twenty years this deposit has been worked, and has furnished in the aggregate large quantities of building stone. The company owns a large tract of land, and from examination the ledge covers about eighty acres of this ground. So far as can be determined, the deposit is of great depth. It is also believed that the ledge extends over more than eighty acres. Practically, the resources of the quarry are exhaustless.

The Rocklin Granite Co. has its headquarters located at Rocklin, in Placer County, and an agency in San Francisco. The officers are: I. L. DeLano, president; M. C. Delano, vice president; E. M. Hall, Jr., secretary. Rock is being constantly shipped from the quarry to San Francisco and to other points in the State. All the stone is shaped at the quarry according to orders. There are several large sheds where the finishing work is done. The outfit of tools is very complete and embraces all the more modern pneumatic appliances for cutting, shaping, etc. No better granite is to be found in California than that taken from the Placer County quarry. The grain is fine and takes a good smooth surface polish. It is free from seams, cracks or blemishes of all kinds. Wherever it has been used, the stone has given perfect satisfaction to builders and contractors. The stone can be quarried in blocks as large as may be reasonably required for building purposes.

Rocklin granite has been extensively used in San Francisco during the past fifteen years, and the demand for it is constantly growing. The stone has been used for the foundation of many of the largest statues and fountains in San Francisco and Golden Gate Park. It is also used extensively in the building of monuments, mausoleums, etc. This granite was used in the construction of the large San Francisco Savings and Loan Association building, the large and splendid courthouse at Stockton, the Central Bank building at Oakland and many other fine structures in the City and State.

Quite a large force of men are employed by the company at the quarry as orders are constantly coming in. At the quarry where the most work has been done there is a hole about 130 feet long, 90 feet wide and 100 feet in depth. The main ledge lies quite shallow—not more than ten feet deep at any point, so that the stripping is not difficult or expensive. During the year 1903 the Rocklin quarry furnished 108,078 cu. ft. of granite, valued at \$181,661.00. The output for 1904 was much larger, and thus far the present year the quantity was still greater. It may be added that Placer County is one of the wealthiest districts for stone and minerals in the State.

During the year 1903 the following was the output:

	Quantity.	Value.
Clay, tons .....	15,000	\$15,000.00
Copper, pounds .....	4,000	520.00
Gold .....		570,571.00
Granite, cu. ft. ....	108,078	181,661.00
Lime, barrels .....	1,500	9,000.00
Limestone, tons .....	4,000	4,000.00
Macadam, tons .....	3,000	3,750.00
Platinum .....		280.00
Quartz crystals .....		1,968.00
Rubble, tons .....	27,967	13,119.00
Silver .....		1,116.00

Total .....

### Change in Granite Company.

ST. CLOUD, MINN., November 21.—A number of important changes have been made in the Plymouth Rock Granite Co. This refers to the purchase by H. A. McKenzie, C. F. Ladner and E. W. Atwood of the interests of Morton and Fred Muchler and August Brett. At a recent meeting of the stockholders the following officers were elected temporarily: H. A. McKenzie, president; C. F. Ladner, vice president; E. W. Atwood, secretary, and F. Davis, treasurer. This company owns cutting sheds as well as three quarries from which red, black and gray granites are taken in large quantities. It is expected that a number of improvements will be made and the business largely increased under the new regime.

### A Field for Granite Operators.

In several counties in Minnesota large quantities of very fine granite are to be found. This is particularly true of Todd, Morrison, Stearns, Sherburne and Benton Counties, as well as fine deposits along the Minnesota river from New Ulm to Ortonville. An idea of the quality of this granite may be gleaned from the fact that its resistant power amounts to about 30,000 pounds per square inch.

Much of this granite is found on the surface where comparatively little or no stripping is required. A number of quarries have been in operation for some years at Ortonville, Granite Falls, Redwood Falls, Morton, St. Cloud, St. Joseph, Luxemburg, Haven, East St. Cloud, Sauk Rapids, Sauk Center, Watab and other points. In addition to these there are number of deposits where an excellent quality of granite has as yet been untouched by the hand of man. Large amounts of



BLOCKS READY FOR SHAPING. THE ROCKLIN GRANITE CO., ROCKLIN, CAL.

granite for building and other purposes have been quarried in the State of Minnesota and as yet the supply seems unlimited, and the possibilities for new enterprise in that State offer very flattering inducements to those desiring new fields for operations.

### Making Notable Improvements.

ST. CLOUD, MINN., November 24.—The St. Cloud Granite Works Co. has just ordered a large compound steam and air compressor which will be installed the latter part of December. It will be the largest one of its kind in the Northwest and will have sufficient power to operate three surfacing machines as well as a number of other tools employed in the granite plants. This company at the present time has a large number of orders and is employing nearly fifty men.



STRIPPING AND BLASTING AT THE ROCKLIN GRANITE CO.'S QUARRY, ROCKLIN, CAL.

### The Pneumatic Plug Drill vs. Hand Drilling.

BY GEORGE H. GILMAN,  
Of the Sullivan Machinery Co.

There is probably no mechanical device known that develops such vast energy in proportion to its size as the pneumatic plug drill, and as a means of cheapening the cost of production and at the same time aiding in the rapidity with which contracts can be filled, pneumatic plug drills stand alone in their class, inapproachable by any mechanical means now known.

The reciprocating piston type of rock drill has its place in the field of rock excavation. There is, however, work which even the lightest form of a reciprocating drill can not do. Such work has been accomplished successfully by the aid of the hammer type of drill.

Electricity, once a bitter rival to compressed air, is now to be seen working hand in hand and in harmony with it for a common object, and its place in the equipment of an up-to-date quarry is to-day as a generator of power in a distributing plant, rather than as a motive power at the work.

Inventors have for years been striving to produce an electrically operated device for drilling plug holes, but up to the present time their efforts have been futile. Numerous patents have been taken out from time to time at Washington for devices of this description, but as a writer once said, "The majority of them are taken away out—and forgotten."

And so the pneumatic plug drill stands alone in its field and in its infancy. It is not the object of this article to dwell upon the numerous uses it may be applicable to, but in a general way, it may be said that all classes of drilling rock which heretofore has necessarily been accomplished by hand labor with hammer and drill, has, by the aid of the pneumatic plug drill, been accomplished successfully in from one-fourth to one-eighth the original cost of the time consumed.

In a recent test of a Sullivan plug drill 480 inches were drilled in granite in one hour, or 4 ft. of 3 in. holes  $\frac{3}{4}$  in. in diameter, including the time consumed in spotting and changing drill bits.

Many producers of stone are misled by the erroneous idea that the first cost of installing a pneumatic equipment at their quarries would make a big difference in their first year's profits. This it undoubtedly will do, but rather in the opposite direction to what they are inclined to assume, as the following data and figures will show.

Actual experience has demonstrated that one man with a pneumatic plug drill will accomplish as much work as six men drilling by hand. Assuming that a quarry is large enough to keep ten plug drills in operation, this would mean that ten men equipped with pneumatic plug drills will accomplish as much work as sixty men drilling by hand. An air compressor with a capacity of

160 cubic feet of free air per minute would be ample enough to operate these tools.

So a brief summary of the situation leaves the matter as follows upon the basis of approximate costs:

10 plug drills .....	\$750.00
1 30 h. p. electric motor.....	500.00
1 160 ft. air compressor.....	500.00
Power at \$30.00 per h. p. per annum.....	750.00
Installation of plant .....	200.00
Repairs per annum .....	100.00
Incidentals per annum .....	200.00
Labor, ten men at \$2.00 a day, per annum.....	6,000.00

Total .....

\$9,000.00
------------

6 men at \$2.00 per day drilling by hand.....

\$36,000.00
9,000.00

Actual saving on first year's work.....\$27,000.00

As will be seen, the above figures are approximate, but they will give a general idea of the great saving that can be made by equipping a quarry with pneumatic appliances, and in this advanced age when competition is so keen, the secret of success lies in reducing the cost of production to its lowest limit.

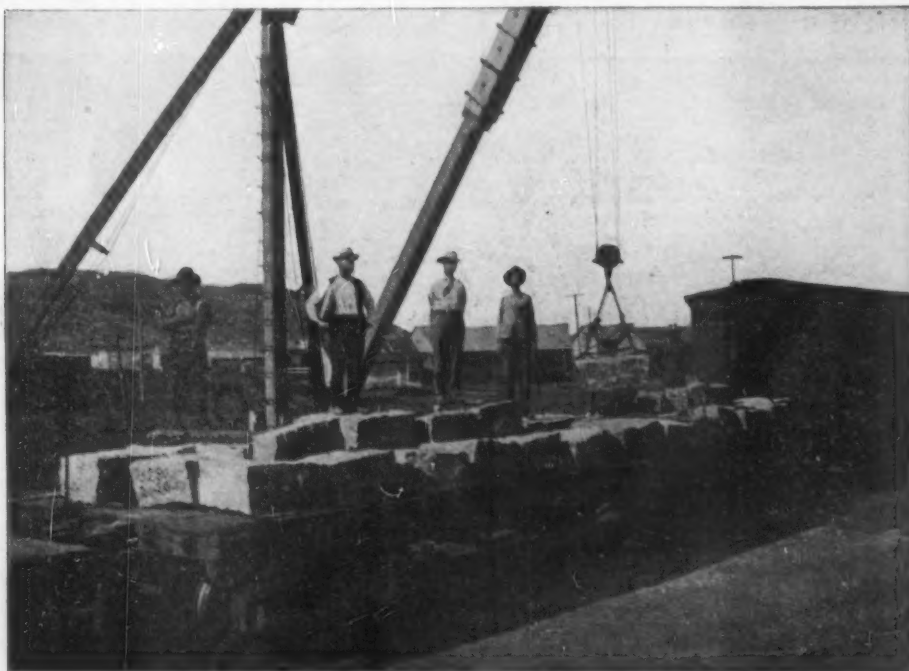
#### Oklahoma Red Granite.

GRANITE, OKLAHOMA, November 18.—The Oklahoma Granite Co. are having an exceptionally fine run of trade. They have recently increased their capitalization to \$50,000.00, which will better enable them to take care of their rapidly increasing business. A word about this company's equipment would not be amiss at this point. They have a 25 h. p. gasoline engine, a Franklin air compressor, several pneumatic drills, three derricks and about 15 acres of fine quarry land, all of which are paid for.

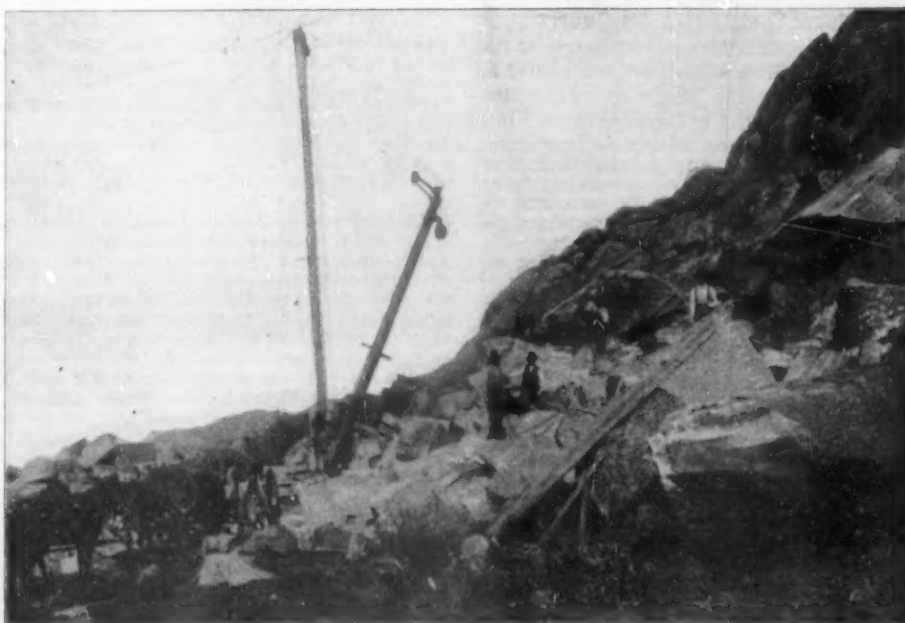
They have placed orders for a large number of cars for monumental stock. This firm is an ardent advocate of printers' ink, but all of the advertising without the goods would be money thrown away. The dark live red stock which the company is producing is winning the trade.

#### Seven Incorporated Companies.

This thriving city seems destined to become the granite city of the Southwest. There are now seven companies operating or getting ready for business. The Abilene Co., with an actual cash investment of over \$25,000.00, is among the largest. They have twenty acres of the prettiest red granite imaginable, and in every way equal to the imported Rose Swede. Their quarry is equipped with a \$2,000.00 steam hoist and derrick, a large steam drill and air compressors. They have a shed located on the right-of-way and on Main Street. The buildings alone cost nearly \$4,000.00, equipped with a 100 h. p. steam plant, traveling crane, four big polishers, large compressors and modern machinery throughout.



LOADING A BIG SHIPMENT FROM THE OKLAHOMA GRANITE CO., GRANITE, OKLA.



VIEW OF QUARRY, OKLAHOMA GRANITE CO., GRANITE, OKLA.

#### Mt. Airy Stone Company.

The Mt. Airy Stone Co. have a quarry here and a finishing plant in Indiana. They purchased an 80 acre tract about two years ago, fifty of which was in stone and the other thirty level land, for \$2,000.00. They have recently refused \$10,000.00 for the property, and say it is not for sale even at twenty. They are shipping two or three carloads a week, and are making preparations for the installation of a steam plant so as to increase their capacity to a car a day.

#### The Ruggles Company.

The Ruggles Co. is rapidly getting things in shape to begin operations. They have over four carloads of machinery on the ground ready for erection.

#### The Apache Company.

The Apache Co. is one of the busiest companies in the field. It is composed mostly of local granite cutters and quarriers. They own their own quarry and finishing shed and are doing a nice business.

#### The Red Mountain Company.

The Red Mountain Co. is the latest in the field to begin operation. They own some splendid quarry property. They have one site, where, if it were

possible to handle it, columns 1,200 feet in length could be gotten out.

#### New State and Penobscot.

The New State and the Penobscot, the two latest to enter the field, have purchased valuable quarry sites, and are getting in shape to begin operations soon.

#### Asphaltum in California.

SAN FRANCISCO, CAL., November 20.—The production of oil asphaltum in California is steadily and rapidly increasing. From a total output of 20,000 short tons in 1902, the production has increased to over 100,000 short tons in 1905. The asphaltum is recovered by careful distillation from the pure asphaltic oils found only in California; these oils carry in the crude state as high as sixty per cent asphaltum, which is practically pure bitumen, containing no organic or other injurious foreign matter. It is refined to various standard grades or consistencies, according to the intended use. When distilled for long periods the result is a pure bitumen very similar to gilsonite and used successfully as a varnish base, for paint making, and other similar purposes.

Another grade has been evolved which is composed of just the proper percentages of asphaltene and petroleum to make an ideal paving material. Many hundreds of miles of streets in the United States are now laid with California asphaltum, and the purity of the bitumen, the absolute uniformity and reliability of its manufacture, make it a favorite with contractors and municipal officials. California asphaltum, as it is now refined, meets the requirements of the specifications governing asphalts in force at Washington, D. C., than which no more severe test may be mentioned.

During the past two years the California Asphaltum Sales Agency, which handles the product of the largest refineries, has shipped asphaltum to England, France, Germany, South Africa, South America, Japan, China, Australia and Canada. Some small movements have even been made to Russia. The goods need only introduction and fair intelligent manipulation to instantly spring into favor. Several entire cargoes loaded into sailing vessels have been sent around the Horn the past year, while in addition to these shipments over 20,000 short tons have been shipped to the Atlantic States by rail. There is no limit to the supply, and the demand is increasing by leaps and bounds.

#### Made Some Improvements.

CONSTANTINE, MICH., November 27.—The Constantine Granite Works say: "Business is good. We have recently installed a pneumatic plant, with six h. p. Fairbanks, Morse & Co. gasoline engines and Starr compressor; air receiver 6-0x3-0, which works fine."



# Stone.

## The National Cut Stone Contractors' Association.

Meets Semi-Annually.

Chas. H. Iselt, Peoria, Ill. .... President  
G. N. Williams, Jr., New York, N. Y. .... First Vice President  
George Dugan, Bedford, Ind. .... Second Vice President  
Henry Struble, Chicago, Ill. .... Secretary  
Jas. W. Milville, Pittsburg, Pa. .... Treasurer

Official Organ, ROCK PRODUCTS.

### The Artistic in Cut Stone.

The demands made upon the cut stone contractor to-day are many and varied. They differ widely from a generation ago, and the invention of machinery and keen competition have both done much toward fulfilling these demands. Of the wonderful increased popularity of stone as a building material there can be no question, but with this growing demand has come a desire for more artistic workmanship, bordering on, if not actually entering into that class of beauty known as art itself.

It can not be said that we live in an age where the highest in art is the ideal, for our present day existence does not altogether permit of the cultivation of an artistic sense; still the trend of thought and ideas are pointing that way, and the general public, grown weary of the severe commonplace in building, has turned its face to a whiter light and now seeks the more refined ideals in large structures.

Thus it is that the cut stone contractor has been literally forced to improve his methods and work for more artistic effects in the development of his industry. True the architects have goaded him on, as they themselves have been importuned by an increasing public sentiment, and the general effect has been gratifying indeed.

From crude blocks of stone taken from the bowels of nature now come truly beautiful effects in the highest sense artistic. From shapeless masses are worked imposing figures, bas-reliefs, ornamentation and other attractive bits of the designers' art.

In addition to his own skill the stone man has the assistance of machinery which has done so much to marvel the uninitiated in the finishing of stone. Equipment of this character has made the industry what it is to-day, for without the wonderful power of these machines the cut stone contractor would be very materially handicapped and wholly unable to meet the demands made upon him. The modern stone plant resembles in some respects at least, the artist's abode, for there one finds the modeler, the expert workman, carving designs of rare taste from what only a few years ago was considered material only fit for the most commonplace in architecture.

Stone has now attained a niche in artistic building materials which it fills most admirably; and it can no longer be looked upon with scorn, for having reached the uppermost point of vantage it continues to gain in popularity. The possibilities of its uses have not been reached, for in ages to come it will still lift its head in steeple and tall structures, aloof from the sordid in art and command the respect of nations.

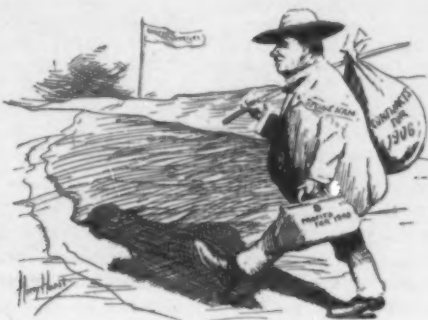
### Something About Indiana Oolitic Stone.

A very attractive paper which has just been written by Mr. Oliver H. Lockhart, who was graduated several years ago from the Indiana University, is entitled, "The Oolitic Limestone Industry of Indiana." This is the first attempt in a systematic way to study this now vast industry and consequently, the paper has much of interest to the general reader. The popularity of the Indiana oolitic limestone has been such in the last few years as to give it more than ordinary prominence among the building materials, and it is now recog-

nized as one of the most beautiful, durable and economical materials known. It has entered into some of the largest and most prominent buildings in our largest cities and its popularity grows apace each day. According to Mr. Lockhart:

"The oolitic limestone occurs in a sinuous band from two to fourteen miles in width, extending from Montgomery County south to the Ohio river and beyond, outcropping in Indiana in the counties of Montgomery, Putnam, Owen, Monroe, Lawrence, Washington, Floyd and Harrison. It does not occur in commercial quantities north of Gosport, and the productive area is now within the counties of Owen, Monroe and Lawrence. Some stone, chiefly for lime burning, is quarried at Salem, Washington County. Beginning on the north the first region of production is at Romona, Owen County; Stinesville, Ellettsville and the Hunter valley district are in the northern portion of Monroe County, while in the southern portion there are active quarries at Clear Creek, Sanders, Smithville, Victor and Harrodsburg. The productive area in Lawrence County is in and immediately around Bedford, at Oolitic Dark Hollow and Reed.

"The oolitic limestone is a remarkably pure carbonate of lime, a sort of calcareous sand rock. The grains have the shape of the fish roe, whence the name oolitic, and are made up of shells and shell fragments upon whose alveoli the coarseness or fineness of the stone depend. Geologically, the stone belongs to the lower carboniferous age. It is of sedimentary character, and scientists say it was deposited in the deep trough of the sea which then covered the larger part of the Mississippi valley. The deposits vary from a few feet up to 100 feet in thickness."



ON THE ROAD TO PROSPERITY.

In addition to the vast amount used in this country, considerable of this stone has found its way into foreign lands on account of its adaptability for being worked easily is one of the reasons for its general use. Aside from this it can be quarried in immense blocks and its free stone nature makes it especially favorable for both cutting and carving. This stone occurs only in buff or blue, either of which color is particularly attractive.

Perhaps one of the earliest uses to which this stone was put was the foundation of the Bloomington, Ind., courthouse, which was erected about 75 years ago. This stone at the present day is in splendid condition.

Aside from building purposes this stone has been used in large amounts for monuments, flagging and curbing, lime, Portland cement and flux for furnaces. The industry begun to improve and make great strides with the construction of the Monon railroad, and in addition to this the steam canneler made it possible to quarry stone with comparative ease. The first steam canneler for the oolitic belt was installed as early as 1877 by John Mathews & Sons. At the present time there are nearly forty organizations of quarries with the employment of nearly 3,000 men.

The value of the stone produced in that district runs in the many thousands of dollars, and with the installation of modern machinery the cost of production has been greatly reduced. The future of this great industry is more flattering, as the supply of stone is inexhaustible and the demand from all sections of the country for oolitic stone has increased so largely during the past few years as to make it an assured fact that this building material can only increase in general popularity.

A number of new railroads are now in course of construction and others are being contemplated, which will add very materially to the general prosperity of the stone people in that district, at the same time, make it possible to ship out large orders and widen the scope of its usefulness in the building material world.

### A New Carving Tool.

Our New York correspondent writes us that he has come across a new carving tool invented by a practical stone cutter, which will soon be ready for the market. It will, according to the inventor's account of it, handle every form of work, open side milling work, large and small carving, paneling, tracing, column and balustrade turning and fluting as well as for caps and sills and other rough work, and is a surfer also.

Our correspondent saw a piece of white marble that had been worked by it into a sunken panel with a series of mouldings encircling a central lozenge, which was raised above the bed of the lowest cut, but which was yet three-eighths of an inch below the original surface. The mouldings were made up of a number of members, some of them having faces of less than an eighth of an inch and running along perfectly parallel and true with their neighbors.

The inventor said that there were two points for consideration connected with the work; the first was whether any stone cutter could do such work at all, and secondly, how many hours it would take him to accomplish it; whereas that work was done by the tool in ten minutes. There was another piece of marble, red Tennessee, with a half round plowed out across it that was done in a few seconds.

The tool is portable and light, not needing a very heavy pressure on the stone.

The cutters are easily detachable for sharpening, and it is a very short work to arrange them according to a template to get any desired combination of lines. One advantage of it, the inventor states, is that any part of the cutter can be renewed, as for instance, in doing a line of ogee work, tools show wear most at the deepest member and then the whole blade must be reopened; while with this, only the cutters doing that particular point of the work, are replaced with sharper ones, all the remainder being undisturbed.

Our correspondent adds that from the sample of work shown, and the description given by the inventor, it can be expected that a very practical tool will soon be upon the market.

### Cut Stone Interests in New Albany.

NEW ALBANY, IND., November 22.—The cut stone interests here during the past few months have shown some return to the old time activity, although, it is acknowledged by those engaged in this industry that conditions of late have not been equal to those enjoyed in former years. These conditions, of course, are due to the fact that building operations here have not been increased to any great extent, and the number of large buildings erected here within the past several years have been comparatively few.

The year which is drawing to a close, however, has stimulated the demand for building stone to some extent and there has been completed several fair-sized contracts. Among these was the building of the People's College, the greater part of which is erected of Indiana oolitic stone, a mention of which was made in ROCK PRODUCTS several months ago. The contractor for this large building was the well known and popular citizen, Frank Fougereose. He has a small plant here and employs about ten men in the rush season. He has been a successful cut stone contractor in this section for several years. As most of his material is ordered and dressed at the large stone plants in the oolitic district and shipped direct to this city, he does not require a large establishment and employs his force directly on the job itself.

He has at present several fair-sized contracts and has enjoyed a good business during the past year. He has just added a new feature to the cut stone contracting and will enter into the manufacture of monuments. He has already received a contract for a large job to be cut from Green River stone for one of New Albany's prominent citizens. This stone is purchased from the Caden Stone Co., Evansville, Ind. He expects to enter somewhat largely into this line of business and will work the stone, granite and marble, thereby greatly enlarging his business during the next year. His plant is conveniently located with a railroad switch in connection, and he is well satisfied with the prospects for the cut stone industry.

Conditions at the large plant of Crambo & Son have shown some indications of greater activity during the past few months and they have a number of orders on hand that will keep them busy for some time. They have just completed several contracts, including the cut stone abutments for

several bridges near this city. Since the death of the senior member of the firm, Edward Crumbo, the business has been managed very successfully by his son William. In addition to the cut stone business, they are also engaged in the monumental line, and have enjoyed a fair season's demand.

Mr. Edward Crumbo was engaged in the cut stone industry for many years in this city, being a pioneer in the industry, and many structures are still in existence, as monuments to his early accomplishments.

Between the two above concerns the cut stone interests are well cared for here, and while the conditions are not up to the standard, they are looking forward to greater activity during 1906 as prospects for building throughout this locality are much more favorable than have been for years.

#### Some Nice Orders on Hand.

ONEONTA, N. Y., November 29.—The Engle Stone Co., which has large plants in this city and Binghamton is enjoying a very active demand for its output, having on hand at the present time several important contracts at the Binghamton plant. The company has a contract for cut stone to be used in the erection of the Binghamton and Rochester armories as well as one for the State College at Ithaca. In addition to this the company has some minor contracts which will carry them over into the new year and are well pleased with the business done during the present year. They have received their share of the nice orders during the past active building season and have worked both full time and full force at both of their large plants.

#### Conditions Are Not Flattering.

PROVIDENCE, R. I., November 21.—Joseph P. Stone a prominent cut stone contractor writes us: "Conditions here are not very encouraging, and I am sorry to say that the outlook for building operations is not much better. This applies to the better class of structures in which stone is largely used, although the number of frame houses and factories have largely increased during the past year. The stone dealers in this section have very little to do, and when the postoffice is completed here they look for a dull spell. This structure will be an imposing one and will cost over one million dollars. The work is well under way on this structure, and some buildings in which limestone, granite, terra cotta are largely used, are in course of construction, although the number of this character is limited. Other lines of business are satisfactory, and I hope the new year will be more favorable to the stone trade generally. However, the indications are unfavorable just now."

#### To Make Some Improvements.

LANCASTER, OHIO, November 20.—The annual meeting of the stockholders of the Lancaster Stone Co., was held here recently and the following officers were appointed for the coming year: W. D. Guldthart, president; F. H. Hertel, vice president and E. M. Fullington, secretary and treasurer. The board of directors is composed of the officers and J. A. Taft, T. M. Livsey, J. E. Ellis and G. S. Frambes. A number of improvements will be made in the company's plant, enabling them to double their output next year. They also contemplate installing one of the largest sand plants in the country and will engage in the manufacture of pressed brick. The prospects for the company's operations were never more flattering and they anticipate a large demand for stone next year.

#### Will Make Improvement.

EUREKA SPRINGS, ARK., November 24.—The Eureka Stone Co. write us: "We have recently completed contract for the stone in the Government building at Harrison, Ark. We have had a busy season, and expect to increase our facilities for producing sawn stone, so we can take care of a larger volume of business next year."

The Roanoke Stone and Lime Co., Roanoke, Va., has been incorporated with a capital stock of \$10,000.00. O. A. Kerms, president; A. D. W. Walter, secretary and treasurer.

The Piedmont Manufacturing and Milling Co., of New York City, has been incorporated to deal in building stone and granite. O. A. DeLong, Oliver Woods and W. J. Parker, all of New York City, are the directors. Capital stock is \$100,000.00.

## Slate.

#### A Valid Reason for an Association.

In view of the fact that there have been considerable price cutting and other detrimental features connected with the slate industry in some sections of the country during the past six months, it appears that now is an opportune time to amend these differences by an organization among the slate operators. This suggestion was made several months ago by Rock Products as the only means of maintaining prices and correcting other evils.

At the time it was made conditions were not as harmonious as they have become since then, and it must be evident that some concerted action is essential to right the wrong. The slate industry is a growing one and the demand for this commodity has never been greater, although the prices have been far from satisfactory.

That which every live industry needs is a strong association to give it the proper equilibrium and offset such unfortunate crises as now confront those engaged in the quarrying and manufacture of slate. Why not join hands and uplift the industry, putting it on a paying basis? No one ever succeeds by cutting prices in order to enlarge his sales. The road to success lies in co-operation.

#### Price Cutting Among the Operators.

GRANVILLE, N. Y., November 24.—Conditions in this section among the slate operators have not materially improved of late. It is true that the demand for sea green slate has increased during the past month, but as the operators have made a decided cut in the price, it can not be said that the gain has been very great. It appears that some manufacturers in Pennsylvania have been cutting the price, and in order to increase their sales the local operators have been compelled to do likewise. As such action can only injure the industry it seems that the proper course to pursue is to follow the suggestion made in Rock Products a short time ago to form an association among the slate manufacturers is timely. This is seemingly the only way out of the present unfortunate condition of affairs.

#### To Develop Slate Property.

LITTLE ROCK, ARK., November 18.—A new slate organization has just been formed here known as the Arkansas Slate and Supply Co., of this city. The company has been capitalized at \$300,000.00 and will establish a branch office at St. Louis, Mo. Of the large amount of stock authorized \$270,000.00 has been paid in, and St. Louis capital is back of the project. The officers are: President, A. L. Shoults, St. Louis; vice president, W. L. McHane, Little Rock; secretary, S. M. Leslie, Hot Springs; treasurer, G. W. Hendricks, Little Rock. The company controls a large tract of slate property of considerable value near Hot Springs, and preparations are now under way for its development.

#### Slate Conditions Not the Best.

SLATINGTON, PA., November 20.—David McKenna, a large slate operator, writes us saying: "The slate business in Pennsylvania this year has been very much like it was last year. We call it slow. We have had no rush for orders as the demand has been very limited. While there was no rush of sales in 1904 and 1905 we sold about all the slate that we manufactured. We have been very much disappointed this year on account of the small demand, and there is hardly any possible reason to give for it. Slate is becoming more and more each year, a staple article as its merits are being recognized, and the builders understand how to

use it properly. It is bound to become the universal material for roofing in this country as it has been in the old countries for centuries. I still adhere to the prophecy I made some years ago, that before the close of the Twentieth century, it will be the universal material for roofing, and not the exception, as it has been for many years."

#### Helping to Boom the Slate Industry.

A slate quarryman, living at Delta, Pa., named Humphrey O. Pritchard, has made a clock out of slate; not a clock case only but the clock also. The varieties he used include peach bottom blue slate and the red, green and purple slate of Vermont. About 164 separate pieces of this material were used in the construction, and are held together by twenty-three dozen small metal screws. Many of the slate sheets are as thin as paper, and scores were broke before the timepiece was finished after eight months work. The clock is four feet high, two feet wide, and one foot deep. It has a cathedral gong and is lighted by nine incandescent bulbs.

#### Best Business in Years.

EASTON, PA., November 25.—The Pennsylvania Structural Slate Co., say: "Not since slate has been used for structural purposes has there ever been such an enormous demand as within the past year; in fact, our business has grown fully 25 per cent in that period, as compared with 1904. During the past year it was found necessary to increase our plants in order to cope with the business which has naturally drifted our way, and we have therefore added to our list of structural slate mills a new plant adjacent to the famous American Bangor quarry, the same costing more than \$25,000.00. The machinery and equipment installed in this new mill are of the most modern type and much of the work that heretofore has been done by hand labor at great expense, we are now able to turn out by machinery. Our business for the past ten months has been very heavy, principally in the lines of slates for urinal stalls, water closets, fire boards, mantels and laundry tubs, and, of course we have to take care of our share (which has been usually large) of orders demanding clear black slate for steps, risers and platforms. We anticipate 1906 will be the banner year in the slate business and will no doubt eclipse that of 1905, though we are much better prepared to handle the excess business with our several mills running on full time, than we have been heretofore. Our advertisement in Rock Products has unquestionably been of great value to us, and has been the means of our securing some very substantial orders, and, in turn, we naturally entertain most friendly feelings toward you, and wish unlimited success in the publication of your journal."

#### Good Year for Slate.

WORCESTER, MASS., November 27.—The Brownville Maine Slate Co. write us: "Our quarry is now closed, and will not be opened earlier than next May. We have a pretty good stock of No. 2's and No. 3's on hand. We are very low, however on No. 1. In fact the demand for No. 1's the past year has far exceeded the supply, and upon a great many inquiries we could make no quotations. We are now shipping one of the biggest orders we ever received, namely, for about 1200 squares. There have been rumors of late regarding the purchase of both Brownville quarries by a syndicate that would develop them to a greater extent than they ever have been developed, so that the demand for the best slate in the world would be supplied."

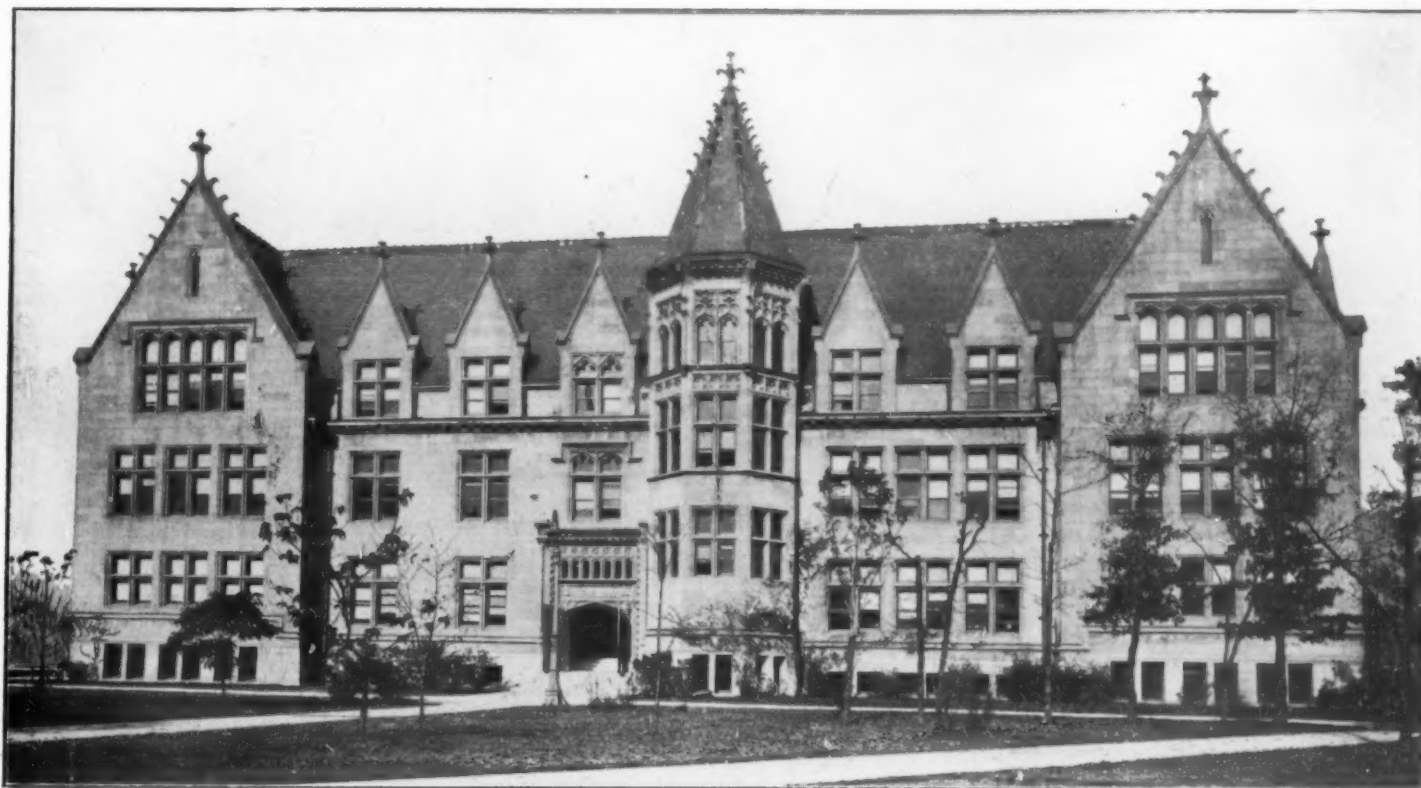
The Mathews Rel Slate Co., of Granville, N. Y., has suspended operations at the old Eagle quarry and is removing some of its equipment to a new location for development.

The Reliance Slate Co., of Pittston, Pa., has been organized to operate a slate quarry at Slatington, Pa. The capital stock is \$50,000.00. The officers are: R. E. Hanke, president; W. M. Fay, secretary and Wm. Drury, treasurer. The directors are the officers and John McGuffee, M. W. Morris, R. M. Hughes and H. W. Hanke.

The Continental Graphite Co., of Camden, N. J., has been organized to quarry slate, granite, etc. The capital stock is \$550,000.00. F. R. Hansell, G. H. B. Martin and John A. MacPeak are the incorporators.



# INDIANA OOLITIC LIMESTONE



KENT CHEMICAL LABORATORY, CHICAGO UNIVERSITY, CHICAGO, ILL.



THE magnificent group of buildings which compose the Chicago University constitutes a fine example of the high qualifications of Oolitic Limestone for classic construction. The Kent Chemical Laboratory in Tudor-Gothic style was erected upon lines drawn by Mr. Henry Ives Cobb, of Chicago, who has gained a large part of his reputation by the use of this excellent building material.

The cut stone contractor for this building was Mr. E. Heldmeir, the veteran contractor, who has brought so many of Chicago's best buildings to successful completion.

This building as completed is at once a tribute to the designer, a credit to the contractor and a crown of glory to the splendid material which was employed in its construction, being the famous buff stone from the Bedford Quarries Co., Bedford, Indiana.

Prospective builders will do well to visit the Chicago University to view this and the other buildings of the group which are built of the Indiana stone, before final completion of their arrangements for construction.

# **PERRY- MATHEWS- BUSKIRK STONE COMPANY.**

**GENERAL OFFICES:**  
320 Monadnock Block, CHICAGO.

**Quarries and Mills:**  
BEDFORD, IND.

NEW YORK OFFICE, Fuller Building.

BOSTON OFFICE, 45 Milk Street.

PHILADELPHIA OFFICE, Witherspoon Building.

CLEVELAND OFFICE, Hickox Building.



**THE JEWISH SYNAGOGUE.**  
ARCHITECT, A. W. BRUNNER. CUT STONE CONTRACTOR, JOHN GILLIES.

## **The Consolidated Stone Co.**

**DARK HOLLOW QUARRIES, BEDFORD, LAWRENCE CO., INDIANA**



Producers of the Celebrated Dark Hollow Buff and Blue Bedford, Indiana, Limestone.  
Their large Mills are equipped with the most modern machinery,  
capable of filling promptly the largest orders for Sawed Stone—  
every description of planed molding — Balusters and turned  
columns and bases of all descriptions.

**General Offices: 322-324 Monadnock Block, Chicago.**

NEW YORK OFFICE, 1123 Broadway.

PHILADELPHIA, 730 Witherspoon Building.

BOSTON, 45 Milk Street.

Tell 'em you saw it in ROCK PRODUCTS.





## The Bedford Quarries Co.

UNION CLUB

NEW YORK CITY.

ARCHITECT:

Cass Gilbert, New York.

CUT STONE CONTRACTORS:

Wm. Bradley & Son, Brooklyn, N. Y.

Stone from the  
Celebrated Hoosier Quarry

CHICAGO OFFICE,  
204 Dearborn Street.

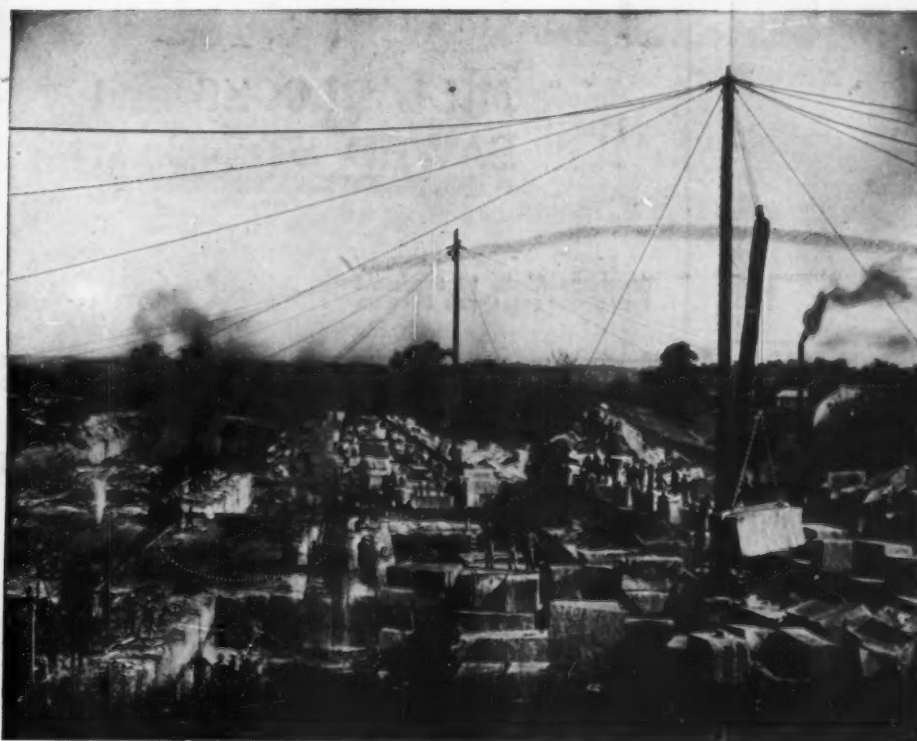
NEW YORK OFFICE  
949 Broadway.

CLEVELAND OFFICE,  
190 Euclid Avenue.

Quarries and Mills,  
OOLITIC, IND.

W. W. WICKS, President.

H. A. WOOLERY, Secretary.



MATHERS QUARRY.

## FOUR COMPANIES ONE MANAGEMENT

PRODUCERS of Buff and Blue Indiana  
Oolitic Limestone. We are the largest  
producers of light and dark blue stone  
"The famous Hunter Blue." Write us.

Mill Blocks & Sawed Stone  
Monumental Bases.

HUNTER VALLEY STONE CO.

STAR STONE CO.

MATHERS STONE CO.

PERRY BROTHERS STONE CO.

D. K. MIERS, Sales Agent.

BLOOMINGTON, IND.

Tell 'em you saw it in ROCK PRODUCTS.

## LEADING PRODUCERS OF BEDFORD OOLITIC LIMESTONE.

We are producers of Buff and Blue

AUDITORIUM HOTEL AND ANNEX, CHICAGO.

**Bedford Oolitic Limestone,**

Sawed, Turned and Machine Dressed.

**OOLITIC STONE CO. OF INDIANA.**

CONTROLLING

ROBERT REED, Sec'y-Treas.

THE BEDFORD QUARRY CO.

BEDFORD,

AND THE NORTON-REED STONE CO.

INDIANA.



The Above Buildings Were Erected From the Buff Limestone of Our Quarries.

**GEORGE DUGAN,**  
***Cut Stone Contractor***

BEDFORD, INDIANA

We built the Main Art Building, World's Fair, St. Louis, Mo., and have many Government buildings to our credit. No job is too large or too small for us. Write to us.

***John A. Rowe,***

CUT STONE WORKS.

**BUILDING STONE**Rustic Monumental Work is Our Specialty.

Our design book containing 52 designs, price . . \$1.00

BEDFORD, IND.

**BEDFORD STONE**Sawed, Planed,  
Turned or Cut**Bedford Steam Stone Works,** BEDFORD, INDIANA

Estimates promptly furnished. F. O. B. Bedford or delivered.

**Indiana Bedford Stone Co.,****MILL BLOCKS and  
SAWED STONE.....**

Complete Stock of Seasoned Buff Stone and Quick Service.

BEDFORD, IND.

**Furst-Kerber Cut Stone Company,**

— CONTRACTORS —

**BEDFORD OOLITIC LIMESTONE**

Equipped to Work Winter and Summer.

Our Specialties: Good Workmanship, Material and Prompt Service Guaranteed.

Cutting Plant, BEDFORD, IND.

Main Office, 443 Fifth Ave., CHICAGO.

More Oolitic Limestone Ads. Page 7.



# Monuments.

## Uniform Figuring Needed.

A comparison of prices quoted by retail monument dealers in different sections of the country based upon practically the same specifications, is very surprising to the man who sees a great many dealers. We will not mention any names, but suffice it to say that one retailer having a good shop with a well stocked show room, well equipped in every particular, wanted \$110.00 for a job in two kinds of granite. Less than one hundred miles away and in another town of almost the same size, a thrifty monument dealer, similarly equipped; in fact, by actual count, he had the same number of jobs in his showroom and the variety in the selections of stock amounting to nearly the exact equivalent, quoted the same specifications at \$380.00. Another party in the same State quoted \$225.00. Now all these parties have to pay practically the same prices for their stocks, because in every instance it was the same, and must have come from one of a group of quarries within a short radius of one another, and yet these dealers, this close together, show such a disparagement in the figures they quote their customers. Evidently one of these parties is ridiculously low or it may be that one of them is outrageously high, but, gentle reader, does it not look to you that it would be a sensible thing for these three monument men to have a little meeting over a cup of coffee and some crackers and cheese, while they talk shop long enough to line up their prices.

Now every man who travels the monument trade knows that such conditions exist and besides this, there is another very peculiar thing to be noted in the perversity of human action. The buyer of a monument will frequently go outside of his own town and pay \$100.00 extra on some specification than pay the price quoted him by his own local dealer. So, it would seem that the local dealer does not get a great deal of business by cutting the liver out of his quotations. Perhaps the extremely low price sometimes makes the customer suspicious as to the quality of the goods and the work that is to be furnished. Selah.

## Keeping Posted.

The old country idea of the son rising up to succeed his father obtains in the monumental line to a greater extent, perhaps, than any other business. Too often the young man learns to handle the tools from his father, and seldom goes ahead or recognizes that his period of activity is cast in another era, but with the details of carving the letters he takes hold of the old ideas and methods and too often ends in failure.

There is perhaps no place where a young man can have his ideas of progress so circumscribed and blunted as in the minute details which form such a great part of the letter cutting profession. The eye follows the little tool which with gentle taps proceeds, and the whole idea is concentrated upon the mastery of little things. The broad and progressive ideas which are constantly being developed in other lines of effort seem to be shut out to the monument man.

What is needed is enterprise and study of the world at large, and the changing ideas of the people. You very seldom find a monument man who is a broad reader upon any subject. He will not even read those things most pertinent to his own work. He overlooks the importance of keeping posted on every improvement and innovation that the ingenuity and study of others develop for his use, and in the study of this world of little things, too frequently the main issue, the main opportunity is entirely disregarded.

## The Question of Apprentices.

The demand for good letterers in the retail monument trade is constantly increasing. Very often in our visits, the retailer says, "Do you know of a good, steady letterer who would appreciate a permanent position in my shop. I could increase my business materially if I had a good, dependable man who could turn out as good and as much shop work as I could myself."

Year in and year out this is the same story. Good positions with good wages are open in many places, and many are advertising in vain to get reliable men for good employment.

If it were not for the tool makers who have increased the product per man in such shops that use modern tools, the monument industry to-day would practically be at a standstill for the lack of men to do the work. In very few of the large shops are there any apprentices learning the ancient and honorable craft of monument making. Often men of indifferent ability and of small practical experience are employed to do so much of the work as they can perform, while one or two experts in the big shops will put the finishing touches on all the jobs.

True the expensive materials that are now used by the monument men will not permit of any great amount of experimenting, and no one can afford to take the work of a beginner, and yet every cutter must of necessity take the tool in his hands for the first time at some period of his existence, and he must apply it to the stone and have many failures before he learns to manipulate it with skill. In most of the shops where finished jobs are taken from stock to be lettered, there is no place for the learner.

In times past, the methods which obtained in the monument shop was to take the rough stone from the quarry, tool it down to the size and shape required, polish it by hand and then carve the letters to make a finished monument. All the preliminary work is now done in large cutting sheds with tools in the hands of experts in order to cheapen the operation, and there is really no place left in the craft for the apprentice.

This matter will have to be taken in hand in some systematic manner so as to provide workmen to take the places of those who are constantly moving on, or a time will come, and not very long off, when the scarcity of good monument workers will raise their wages to impossible figures. The question is well worth the consideration of all the monumental associations.

## Some of the Reasons Why.

Occasionally one finds a retail monument dealer who has made a snug fortune by the operation of his business, but in nearly every such case the party is an old man who has given all the years of his young manhood as a slave to the chisel and mallet. It is too frequently the case that we find a man of advanced age beat out of his business and practically set aside in the community where he has labored the best years of his life by the advent of a new firm in the field, whose up-to-date methods eclipse the settled and established styles and taste of the old monument dealer.

In most cases it is the fault of the old monument dealer himself, because he continues to put his money in marble pieces similar to those that were popular a generation ago. When a salesman arrives with up-to-date designs in the present popular granite, he has no money left with which to buy. The younger and more enterprising competitor fills his show rooms with these goods, keeps abreast of the times by reading the trade papers. He not only knows what is popular now, but by anticipating is continually finding something new to show his customers. He reduces the price of labor to a minimum by putting in an air compressor and using pneumatic hammers, while the old established monument house continues with the chisel and mallet which are as ancient as the profession itself.

The new firm takes a raised letter job and brings the letters out in strong relief, because it is no more labor by the use of the improved machinery to cut deep into the granite than it is to merely scratch off the surface of the polish. The up-to-date plant with the modern equipment takes a job in V-sunk letters. The letters are sunk to make a uniform right angle from the polished surface and the character of the work, when placed opposite that of the old concern using the old methods, speaks for itself—an argument without words, proclaiming the advances that have taken place in the monument industry, which must be recognized by every intending investor.

In vain has the old established house placed upon its sign, "Established (forty or fifty years ago)." If the proprietor has not kept pace with the times, selected his stock, not according to his own taste, but according to the demands of his customers and equipped his plant in such a way as to cheapen the labor required to finish the job for delivery, he can not expect to keep in the ever advancing procession.

There is no monument house backed with good credit that can not obtain conveniently an air compressor and tools whose operations are easy to learn, at an insignificant price as compared with the results obtained.

## Tampa Monumental Works.

TAMPA, FLA., November 2.—The Tampa Monumental Works send us the following: "Your paper is all right; we find it the best medium we have on stone products, and we would not like to do without it."

## Important Improvement.

RACINE, WIS., November 29.—Paddock & Meyers Co., of this city, have had a good business, and the prospects for the new year are even brighter. They have recently installed a Chicago pneumatic tool, an air compressor and a motor with three hammers. During the winter they will install another polisher.

## Change in Firm.

COLUMBIA, TENN., November 28.—W. E. Brittain, who has been with the Brittain Marble Works, will open a business of his own January 1. He will deal in and manufacture all kinds of monumental work, iron fences, etc. The style of the new firm will be W. E. Brittain Marble Works. Mr. Brittain is one of the best posted men in the business, and has made a distinct success in his profession.

## Erecting New Monument Plant.

KANKAKEE, ILL., November 23.—H. C. Frederick, a prominent monument man here, is erecting a large plant at the entrance of Mt. Grove cemetery which will be equipped with modern machinery, including pneumatic tools, and will be one of the finest plants of its kind in the country. He formerly operated plants in other parts of Illinois, but decided recently to combine all his operations at Kankakee and enlarge his business, which has grown very materially the last few years.

## Opening in New Quarters.

CARTHAGE, MO., October 20.—The Carthage Monumental Stone Quarry Co. recently elected the following officers: J. W. Aylor, president and treasurer; B. L. Van Hoose, vice president; W. W. Whitwell, secretary; W. A. Griffith, general superintendent. The company is opening up a new quarry southwest of Carthage and will make a specialty of monumental stone. They have opened up a new face of stone peculiarly suited to their use and new machinery has been ordered for the plant. However, it will be six months before the machinery will be in place, although stone will be shipped some time before that.

## W. W. Dye & Co.

DANVILLE, ILL., November 18.—W. W. Dye & Co., of this city, have recently purchased to h. p. pneumatic plant and expect to have the sith in operation by the beginning of the new year. Their business has held up under adverse conditions. Help has been a decidedly scarce article and as a consequence deliveries have been slow. Many of the manufacturers have been dilatory in their deliveries which did not work as great a hardship as it might have had labor been more abundant.

## To Manufacture Burial Vaults.

ANDERSON, IND., November 23.—The American Burial Vault Co. is an organization recently established here by James H. Kimberlein, of McCordsville, Louis E. Kimberlein, of this city, and R. E. Bragdon, of Hazelwood. They will manufacture burial vaults of reinforced concrete. The estimated weight of one of these vaults is about 3,000 pounds, and it is said to be the most economical article of its kind ever sold. They anticipate a large demand for their specialty, and expect to be in operation in a few months.

### Prosperous Michigan House.

MUSKEGON, MICH., November 26.—The Muskegon Monument and Stone Co., of which Messrs. Bauer & Beamer constitute the entire ownership, take care of the monument and cut stone proposition in this part of the State of Michigan, which was once the great hub and center of the lumber producing section upon the eastern shore of Lake Michigan. This town was once the home of fourteen great saw mills and is now filled with machinery buildings, and the old-time wooden structures are giving place to stone and wood, and this movement has become the basis of the cut stone department of Messrs. Bauer & Beamer. Their monument shop and cut stone yard is located just opposite the cemetery entrance, and is a credit to their enterprise and ability. The firm has been in business about five years, and they have recently doubled their capacity, for the extent of their operations has been constantly increasing from the start.

Their monument shop is splendidly equipped with a Yale & Towne traveler, which extends through the shop and out into the stone yard. The plant is equipped with a Gardiner air compressor, which is driven by a Fairbanks-Morse gasoline engine. For the present time, at least, they are using an old-fashioned rubbing bed, but expect to put in a polisher with the rush of business that always comes in the spring.

They have a commodious show room in which they have a large collection of creditable jobs, consisting of Barre, Quincy and Missouri granites, Vermont and imported marbles. This firm uses a considerable quantity of Bedford stone for bases, and in their cut stone department they employ quantities of Bedford stone, as well as the red sandstone from the upper peninsula and Minnesota, known as the Portage redstone.

Their plant and yards are lighted by electricity, and they employ, at certain seasons of the year, a good, big force of stone cutters, and three tools are kept constantly at work in the monument department.

At the time the representative of Rock Products visited their plant, Miss Bauer, the daughter of the head of the firm, was in charge of the shop. She knows every kind of granite and marble on sight, and can tell how many cubic feet there are in almost any job without calculation, by just looking it over. In fact, she is a bright little business woman, and alive to all the up-to-date methods in both the monumental and cut stone lines.

### Old Established Monument Firm.

SOUTH BEND, IND., November 27.—The well-equipped monumental establishment of Clarence N. Edwards is located at 411 South Michigan Street. Mr. Edwards succeeded his father in the business about twelve years ago, and intends to erect a new show room and shops because his present quarters are very much crowded, and the increasing business demands more room. A short time ago, Mr. Edwards installed a compressor which is driven by a Fairbanks-Morse gas engine, and he uses the Dallett-Kotten and Oldham tools, all of which are giving splendid satisfaction.

Mr. Edwards buys his stock in carload lots in the shape of rough stone, and a great many of his jobs are worked out in his own shop. He has an emery wheel built by the Chapman Portable Forge Co., Marcellus, Mich., which is very convenient for jettering artists to sharpen their tools.

the show room are to be seen a fine assortment of jobs representing imported Scotch granite, Tausau, Barre, Quincy, Pleasant River, Beaver Lake, Millstone, Missouri and Oklahoma granites, besides Vermont and Gouverneur marble and Bedford stone, which is used to great extent in producing bases for the larger jobs.

Mr. Edwards has enjoyed a good, satisfactory business for a number of years, which has been constantly increasing, and at the time of our visit had still a nice lot of jobs to be set up before the close of his active season for the fall, and there are quite a number of jobs to keep the tools busy during the winter months. He has a specially built monument wagon of his own designing that cheapens the hauling feature to a great extent.

Messrs. Slaughter & Thompson have purchased the stock and business of N. A. Tibbetts, 129 Vista Avenue, and expect to start up within a very short time with increased facilities.

The Neal Granite and Marble Co., Punxsutawney, Pa., has been organized with a capital stock of \$30,000.00.

### Doing a Nice Business.

NEWCOMERTOWN, OHIO, November 29.—The monument business is represented in this town by Mr. D. O. Belter, who moved here from Bakersville about four years ago and equipped a first class monument shop. Mr. Belter operated in Bakersville for about thirteen years, and he is one of eight brothers, all of whom are in the monument business, having learned the trade from their father, who operated at Oneida Mills, Ohio, for many years.

Last April Mr. Belter put in a Blaisdell compressor driven by a gasoline engine. He really has a very model plant, and says he does not see how he ever got along without this plant for so many years. He uses Kotten hammers exclusively.

Mr. Otto Belter, a son of the proprietor, is his general helper, and has gotten to be very expert on the V-sunk letters with the pneumatic tool. In Mr. Belter's show room there are quite a number of nice jobs in the New England light and dark and Western red granites. He said, however, that he had allowed his stock to run down for the present, and will stock up again with a nice line of work for his spring trade.

On account of his thorough knowledge of the business, and being an expert letterer himself, he has built up a good trade at Newcomertown, and the immediate neighborhood, and he is just the man to look after his business thoroughly and take care of his customers at all times.

We hope, at no distant date, to have an illustration of Mr. Belter's power plant for the benefit of the trade. He says he expects in the near future to change his gasoline engine so as to run it by gas, which can now be had at a reasonable figure in this town.

### Will Remove to More Commodious Quarters.

LEXINGTON, KY., November 10.—The leading monument concern in this section of the State is that of Wm. Adams & Son, who have a large shop and display room on North Broadway. This concern is the largest in central Kentucky and carries a fine stock of monuments, comprising various kinds of stock. They have an up-to-date plant, containing all the modern appliances in use today by the leading monumental men, and have completed some very fine work which has been shipped to every section of the country. It is understood that in a short time this company will change their location to a more imposing structure on Main Street. They have been established here since 1874 and have grown from a very small business to the present one of large proportions.

E. F. Anderson, Circleville, Ohio, has purchased the monumental plant of Price & Co., and will have the stock and equipment moved to Mt. Sterling, Ohio, where he will conduct a monumental business.

### Marble Monument for a Big Chief.

SAN FRANCISCO, CAL., November 20.—A very unique marble monument has just been completed at Tacoma, Washington, that is to mark the last resting place of a noted Alaskan Indian Chief, whose name was "Shadesty." This Indian belonged to what is known as the "Bear Tribe," and died in December, 1903. This work was done by Mr. Andrew C. Thompson, a well known modeler and sculptor of Washington. It represents a huge female grizzly bear in the act of desperately defending her cubs, and was carved from snow white marble. It is a little over full life-size—7 feet from tip to tip, and 4 feet high. This huge piece weighs 3,600 pounds. This giant "marble bear" will be shipped from Tacoma to Fort Wrangle, and from that point carried about 150 miles over land to the home of the Bear Indians. The Indians will transport the monument on its over-land journey according to their own primitive methods of transportation.

Sculptor Thompson has been carving images for the Alaskan Indians for the past 25 years, but this is the largest monument carved from a single piece of marble he has shipped. It is customary among the Alaskan Indians to leave sufficient money to pay for their own tombstones, and Chief Shadesty saved for a life-time to give himself a suitable piece for his grave. He was wealthy enough to leave his kinsman considerable money. Shadesty died at quite an advanced age, and for many years was one of the most prominent Indians in the North. Sculptor Thompson has been hard at work on the piece for more than three months past.

### Believes in a Good Thing.

C. E. Hudson, Alliance, Ohio, a prominent monumental dealer of that city, has nothing but good things to say of the monument business in his section. He states he is getting good prices for his goods and has placed quite a few large monuments this season. He uses mostly Barre and Quincy stock, but keeps on hand both Wisconsin and Missouri stock. He is a staunch friend of Rock Products and says, "no monument dealer can afford to be without it."

Chas. A. Swingle & Co., Quincy, Mass., report that they are doing remarkably well and have some fine work in the course of construction. Two monuments mentioned especially are a shaft monument and an all polished sarcophagus with a base 7 ft. by 4 ft. 8 in. The shaft monument will be about 38 ft. high, cut from medium Quincy granite.



MONUMENTAL SHOW ROOM. MUSKEGON MONUMENT AND STONE CO., MUSKEGON, MICH.



**On the 40c per cu. ft. Release.**

A granite man said: "I see that some recent occurrences are forcing the 40c clause on the attention of the trade. A man don't think about it when all goes well, but when things go crooked it is brought to his attention hard. The manufacturer or dealer feels that it is all right when figuring out his contracts, but when a stone gets lost and the railroad company wants to settle for 40c then he puts up a holler.

"I have had some 'experiences' along this line, one of which was in the matter of some finished bottom bases that had failed to arrive. The company wanted to settle at 40c, but by a chance I found that the stones had got in with some bridge work and were built into a bridge pier of the company, and even then they actually wanted to settle for 40c, but didn't.

Another experience was of some stones that had got lost around East St. Louis in the recent flood year. They kept up the "tracing" act for a year and a half and then gave them up as lost and came to settle at 40c. I traced a little longer and further and established beyond a doubt that the stones had lain for a whole year untouched, without any effort being made to find the consignee, till the legal time had expired, and then they were sold for the freight to a local dealer. Again the 40c did not "go."

"I had another case where a \$16.00 marker was lost. The company's agent, a very unpleasant man, came to see me with the usual offer of 40c. I declined to accept it and showed him a decision which upheld by contention of his road's full responsibility. He said, 'I know it; it is true, but it will cost you so much to fight it that even though you will beat us it will pay you much better to accept the released valuation settlement.' I said, 'I am going to get my bill in full from your company and I won't sue you, or have any trouble with you, or go to any expense. And you can stay right here and see me do it.'

"I then dictated letters to every agent we had along his line or on lines tributary to it, and we had quite a number, instructing them under no circumstances to ship anything by that road and to go to considerable trouble and expense to avoid doing so, and to let the local freight agents know it. He left in a rather scornful manner but not very long after he came back, the company having in the mean time heard from the local freight agents at the various points, and asked me if I would withdraw my instructions if the company paid the \$16.00. I told him that if the company would send some one else I would speak to him. They did so, and I withdrew my letters, got my \$16.00 and got a promise that they would never send the first man to me again.

"But following the 40c clause out to its obvious logical conclusion, I wonder that any small stone that can readily be stolen even reaches its destination at all. It is so profitable for dishonest employees to steal it with the big margin that there is in it for them, costing say \$1.25 per cu. ft. at the quarries and \$5.00 per ft. finished, with the perfunctory investigation, or none at all, that the company will set on foot when its settling price is as low as 40c, that I wonder that more small stones are not stolen. But we had one experience that was at a total variance with all our others on this point. A die reached its destination at a Southern station badly damaged. The direct responsibility, whether on the Southern road or on the Northern one, could not be settled, but anyhow the former assumed full responsibility with us, agreed to pay us \$75.00 for a new die which we were to have made, and to have the factory work the old one over to the best advantage and find a purchaser for it for the company's account.

"Early this week I wrote them telling them I would be pleased to have the \$75.00, and this morning I received a letter to the effect that the Northern road, between which and the other lay the responsibility for the loss, had refused, contrary to expectations, to deadhead it back to the quarry for the Southern road, but as soon as that was settled I would get my check. But to get back to the 40c clause, it is mighty unsatisfactory proposition to be asked to accept that on a selling value of \$5.00 per cu. ft. But when you accept the restricted rating, carrying such low freight, how can you fairly kick at the other end of the proposition anyhow, unless it is a palpable case of gross negligence or carelessness on the part of the railroad company?"

**Cedar Rapids Monument Men.**

CEDAR RAPIDS, IA., November 19.—H. C. Moody, the well known manufacturers' agent, represents the following firms: Aberdeen Granite Works, Quincy, Mass.; Bedford Steam Stone Works, Bedford, Ind.; Northern New York Marble Co., Gouverneur, N. Y.; Anderson Bros. & Johnson, Granite Heights, Wis.; Canton Bros., Barre, Vt.; St. Cloud Granite Works, St. Cloud, Minn. He reports business as very good. Mr. Moody is very popular with the trade and one of the best posted men in the business.

**Searles & Baxter.**

The Cedar Rapids Marble and Granite Works, of which Searles & Baxter are proprietors, are located at 3017 Third Avenue, and are among the oldest dealers in Central Iowa. Mr. J. M. Searles, senior member of the firm, was the first president of the Iowa Monument Dealers' Association. He reports considerable activity in the monument business, and says sales last month ran over the \$10,000.00 mark. This is exceptionally good business considering the time of the year, and this was on account of securing several large contracts of which they make a specialty. They have a well equipped plant.

**Joseph Ptak.**

Joseph Ptak has his offices and warerooms at 417 South Third Street, and carries a nice line of marble and granite monuments in stock. He reports business as exceptionally good. He is one of the leading members of the Iowa Monument Dealers' Association and hopes to be able to attend the annual meeting at Des Moines. Mr. Ptak is one of the most progressive monument dealers in the State.

**Krebs Bros. Co.**

Krebs Bros. Co., of which Mr. W. M. Krebs is president, and Walter Krebs, secretary, have a very handsome store at 212 Fourth Street. Mr. Krebs is one of the oldest monument men in the State and one of the most successful. Mr. Walter Krebs, who is the son of the president, has gone to Denver, Col., for his health. He has been traveling for the firm for some time and has been very successful. Mr. W. M. Krebs started out on the road some time ago to take his son's place.

**The Hoffman-Bruner Granite Co.**

The Hoffman-Bruner Granite Co. has a well equipped plant at 123 Third Avenue, East. They use pneumatic tools and other appliances and turn out first class jobs.

Speaking of the situation, Mr. George Bruner said there had been a lull in business, but he looked for a very early resumption of trade. They have a nice store and carry a large stock of all the leading granites.

**Griffith Marble Co.**

The Griffith Marble Co. have their offices and works on Howard Avenue. They are the largest wholesale and retail dealers in this section of the country. They have one of the best equipped plants in the West. Their equipment consists of electric power, saws, lathes, polishers and pneumatic tools for carving and lettering. They have two cutters on granite, and two polishers. They do quite a nice business in turning and finishing for the Carthage quarries. They cut Barre, Quincy, Red Missouri and Carthage stone principally. Some of the handsomest jobs on the floor were of Carthage stone. They make Woodmen monuments in granite and Carthage stone a specialty. The firm is composed of W. A. Griffith, J. C. Kellogg and C. W. Whitsell. Mr. Griffith, who is president, will shortly retire from the firm and engage in the quarry business.

**One of the Many Complaints.**

ANAMOSA, IOWA, November 27.—The Anamosa Marble and Granite Works write us: "Business for 1905 is closing up rapidly. Have had a splendid season, though have experienced considerable loss by reason of wholesalers and quarries not being prompt in shipments. Outlook for 1906 is very good."

Angola Granite Works, Angola, Ind., has been succeeded by the Angola Monument Co. Messrs. W. T. Lazenby and E. M. Heltzer are the proprietors, and they report business at the present time as being satisfactory.

# Chilled Steel Shot

Warranted Superior to All Other Abrasives for Sawing, Rubbing and Grinding Granite, Marble, Sandstone, or Any Other Hard Substances.

## Granite Stain Eradicator

Which we guarantee will permanently remove all Iron, Sap and Oil Stains from granite without injury to the stone.

We are positively the largest concern in this country handling Granite and Marble Polishers' Supplies exclusively. We sell Carborundum Grains and Bricks, Emery Grains and Bricks, Waddells and "Ox" Putty Powder, Pure Mexican Felt, Red Beach Plaster, Tampico Scrub and Steel Wire Brushes, Red, Blue and Brown Grits, Scotch Hone, Oxalic Acid, Selected Lamp Pumice Stone, Combination Boxes for hand polishers of both marble and granite, etc., etc. Remember we positively guarantee the Quality of everything we sell. This always insures your getting the Very Best Goods that are manufactured.

Satisfaction Guaranteed.  
Correspondence Solicited.

NATHAN C. HARRISON, General Agent.

## Harrison Supply Co.

32-34 INDIA WHARF, BOSTON, MASS.

WRITE FOR PRICE LIST.

SEND FOR SAMPLES.

**Will Install Modern Equipment.**

WAUKON, IOWA, November 13.—J. A. Briar, proprietor of the Clayton Granite Works Co., located at Monana, Ill., recently visited here and reported that his business has improved materially during the past year and he now contemplates enlarging his plant and installing pneumatic tools and other improvements, among which will be a large boom derrick for loading and unloading stock directly in his shop.

**Look for Big Year.**

The New Albany Manufacturing Co., New Albany, Ind., who are extensively known in the cut stone trade as makers of equipment for use in this great industry, have enjoyed one of the most prosperous years in their business. The popularity of the New Albany Manufacturing Co.'s machinery has become very wide spread of late, and the company is highly gratified on account of the large business done among the cut stone contractors. In anticipation of the coming year, when the building industry will be largely increased, they look forward to a most successful business and expect to supply many of the users of such machinery with additional equipment.

Among our callers this past month were Mr. Colin Fraser, president, of Philadelphia, and Mr. Woodrofe, of the North Carolina Granite Corporation, of Mount Airy, N. C. They visited Louisville en route from the West. Their new equipment is fast being completed at Mount Airy, although they are making additions from time to time in order to take care of their increased business. Mount Airy granite is beautifully laid in the ground, and this makes it very accessible and the application of compressed air instead of water to move the blocks is quite an innovation, and as drilling a six or eight foot hole and blasting the lower end of it so as to split the rock, the air pumps are attached and the block, 15 feet long and maybe 15 feet wide, is raised seven or eight inches out of its original position. These gentlemen have been visiting some of their customers in the West and incidentally dropped in on Cincinnati where a Mount Airy granite residence has just been completed.

# Architectural

## NEW THEORIES OF ARCHITECTURE

From the *Architectural Record*, London.

The following curious theories of architectural design have been set forth by Mr. Claude Bragdon:

### The Theory of Yo and In.

The first law of beauty, alike in nature and in art, is that of polarity. All things have sex—are either masculine or feminine. In Japanese philosophy and art the two are called respectively *Yo* and *In*. These little words, being free from the partial and limited meanings of their English correlatives, will be found convenient, *Yo* to designate that which is simple, direct, primary, active, positive; and *In* that which is complex, indirect, derivative, passive, negative. Things hard, straight, fixed, vertical, are *Yo*; things soft, curved, horizontal, fluctuating, are *In*.

Nowhere are the two more simply and adequately imagined than in the vegetable kingdom. The trunk of a tree is *Yo*, its foliage *In*; and in each stem and leaf they are repeated.

The beauty of any architectural form depends not alone upon the perfection with which it expresses its peculiar nature and function, but upon the perfection with which it expresses this universal nature as well. It is easy to show in what manner many admirable architectural forms have been developed simply through necessity, and that every increase in their fitness marked a corresponding increase in their beauty; but there remain many others whose undying charm can not be accounted for in any such manner. The secret of it lies somewhat in the fact that in them *Yo* and *In* stand symbolized and contrasted. The familiar classic console or modillion is an example. Although in general contour it is well adapted to its function as a supporting bracket embedded in and projecting from a wall, yet the scroll-like ornament with which its sides are embellished gives it the appearance of not entering the wall at all, but of being stuck against it in some miraculous manner. This defect in functional expressiveness is more than compensated by the perfection with which feminine and masculine characteristics are expressed and contrasted in the exquisite double spiral opposed to the simple straight lines of the moulding which it subtends.

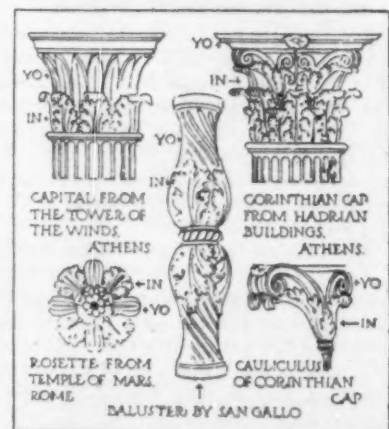
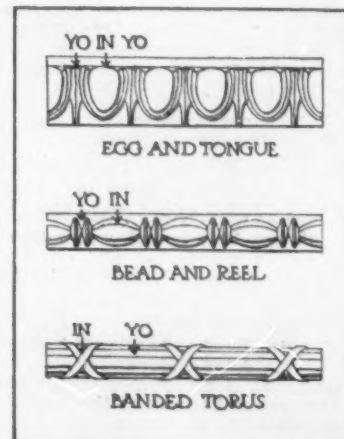
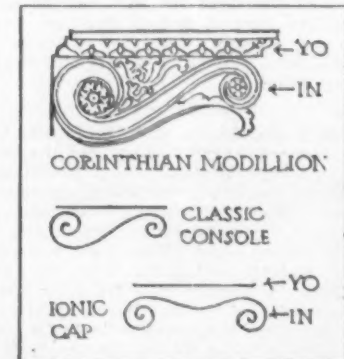
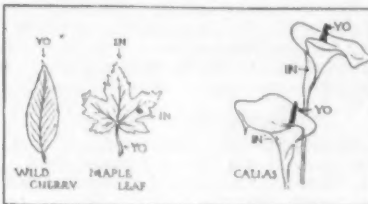
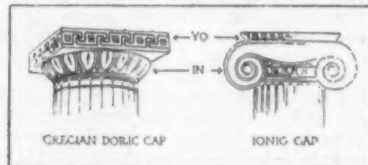
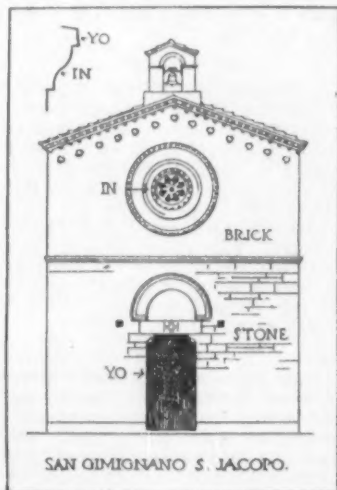
By fluting the shaft of a column its area of cross-section is diminished, but it appears stronger because its masculine character as a supporting member is emphasized.

The Ionic capital, belonging to a more feminine "side," exhibits an abacus subordinated to that curious and beautiful cushion-shaped member with its two spirally marked volutes. This, though less fitted for the position which it occupies and for the office which it performs than is the echinus of the Doric cap, is a far more perfect—and for that reason more beautiful—expression of the feminine element in nature. There is an essential identity between the Ionic cap and the classic console before referred to, although superficially the two do not resemble each other. A straight line and a double spiral are elements common to both.

The Corinthian capital consists of an ordered mass of delicately-sculptured leaf and scroll forms sustaining an abacus which, though relatively masculine, is yet more curved and feminine than that of any other style. In the cauliculus of a Corinthian cap *Yo* and *In* are again contrasted.

There is evidence to indicate that during the development of Gothic architecture in France this sex distinction became a recognized principle. The north, or right-hand, tower ("the man's side") was called the sacred male pillar, *Jachin*; and the south, or left-hand, tower ("the woman's side") the sacred female pillar, *Boaz*—from the two pillars flanking the gate to Solomon's Temple. In only a few of the French cathedrals, however, is this distinction clearly and consistently maintained.

ed. Tours forms perhaps the most remarkable example; for in its flamboyant facade, over and above the difference in the breadth and sturdiness of the two towers, there is an unmistakable distinction between them in the character of the ornamentation, that of the north tower being in comparison with the south more salient, harsh and angular. In the cathedral of Notre Dame the north or masculine tower is also perceptibly broader than the south, or feminine.



THE CATHEDRAL OF TOURS.

### Architectural Progress in America.

In conversation with a successful cut stone contractor located in a thriving Northern city, he related part of his early experiences in the business and finally said:

"My personal experience covers a period of thirty-six years, and my plant to-day represents a complete revolution from what was the accepted idea of the cut stone plant at that time. There was very little if any machine sawing, and planer work at that time was practically unknown. All that class of work which is now accomplished by machinery, was laboriously performed with hand tools, and the work consequently progressed with a degree of slowness which would not, at this time, be tolerated.

"The principal employment in the yard where I served my apprenticeship was the making of window caps, lintels and plain columns for doorways and the like. In fact, besides the stone trimmings for jobs constructed of brick, there was very little tool work in the cut stone business. In those days it was very seldom that a whole building was built of stone. I can remember when there was not a single building of prominence west of Pittsburgh that was built entirely of stone, and it was not until the gang saws and planer came into general use that cut stone was considered to any great extent for the construction of even the most expensive public buildings.

"The rapid increase of wealth in this country in the first few years succeeding the war of the rebellion the cut stone industry experienced a lively growth in popularity. The Government let a number of contracts for post office buildings in several of the Western cities. The new Chicago, which sprang up after the great fire in 1871, was largely built of creditable stone structures and our architects began to develop stronger lines of beauty and grace in their competition for patronage.

"This time (1871) and for fifteen years afterwards may be called the period in which was developed the cut stone industry as we have it today, and this development when taken as a whole,



represents a marked return to the classic models of design.

"There are more buildings on pure Greek lines and proportions in the United States than in any other country of the world to-day. Wonderfully beautiful composite styles have been developed in the American emulation and competitive system, and the result has been that distinctly American styles have come into vogue which are at once the most practical and useful, the most attractive and lasting that the builder has ever known."

Time was when it was necessary for the student of architecture to visit the capitals of Europe to

be over-estimated or over-stated, because he has preserved all and everything that is good in the old classic models, he has developed refinements which constitute enormous improvements and economy over anything that has been known in the past. That most important feature of economy of space without the sacrifice of either beauty of design or fair proportion is the laurel which has been achieved by the study and practice of the American architect in this new world of ours, employing the best materials that the world has ever supplied to the tool of the cut stone contractor.

#### After the Old Roman Forum Style.

SAN FRANCISCO, CAL., November 15.—San Francisco is very soon to have a novel styled building—something after the old Roman type of architecture. Only one building of that peculiar style now exists in the United States—the Knickerbocker Trust Bank Building in New York City. The new structure is to be erected by the Banking Company of California, one of the pioneer corporations of San Francisco. In its construction the building will be an innovation in San Francisco architecture. In actual dimensions the new structure will be 87½ feet on California Street, 124 feet on Sansome Street, 87½ feet on Halleck Street. The building will be simple, dignified and classical, the details of which are taken from the ancient ruins of the old Forum, at Rome.

The general plan is of a colonnade of Corinthian columns filled between with bronze grilles and glass to admit the light. All the foundation and exterior work (except that of the bronze) will be of the finest California granite. The height from the sidewalk to the balustrade will be 70 feet. The general effect will be that of a one-story structure, though, in reality, it will have two stories.



MAIN CORRIDOR, SAN FRANCISCO P. O. BUILDING.

study the models of architecture of the various periods. This custom has become obsolete for the reason that we have in our own country better models than any to be found abroad, and in many instances these are carried out with strict regard to the most sumptuous decorative features which are not represented by any of the ancient works.

The architect and builder of Europe to-day must come to America for pure classic lines in the highest development of his honorable art. What the American architect has accomplished can not



UNITED STATES COURT ROOM IN P. O. BUILDING, SAN FRANCISCO, CAL.

The interior is to be one large banking room, covering the full dimensions of the lot, and with a height of 50 feet. Above the huge banking room, though hidden by the balustrade, will be two rows of offices for the accommodation of the officials and for various departments connected with the bank. These will be reached by both an electric elevator and by a staircase. The interior finish will be of the finest marble and mahogany obtainable. To be in perfect harmony, modern furniture of the best design will be installed.

The decision of the bank officials to build only for banking purposes is said to have been suggested by the practice prevailing for a few years past in large Eastern centers of population. Another was the consideration of the undesirability of involving so large an amount of the bank's available capital in a building.

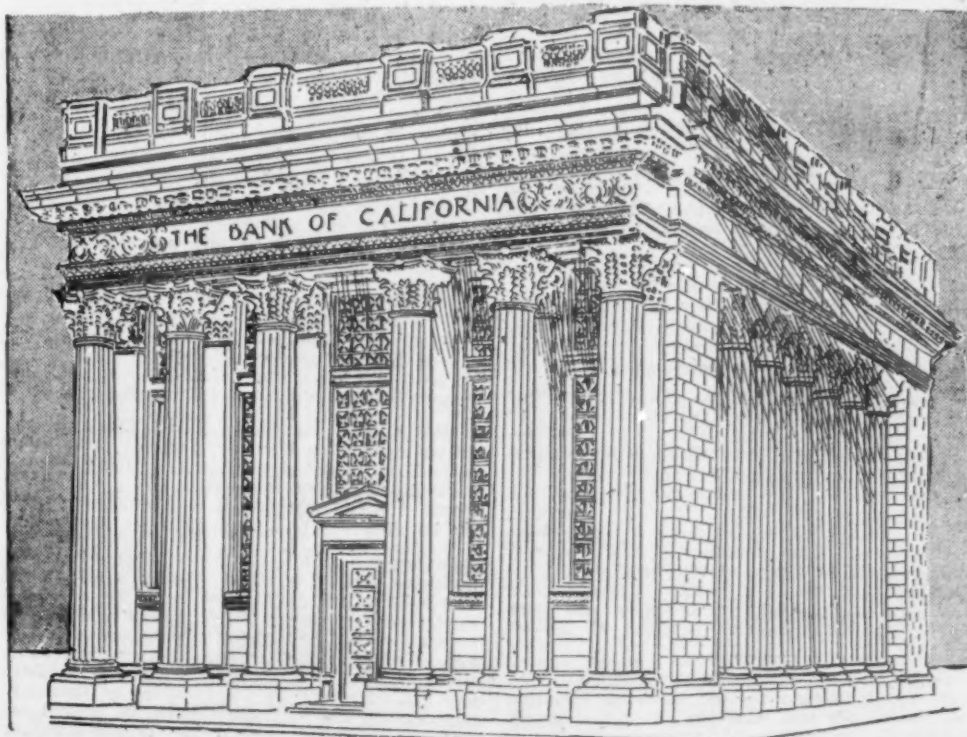
The work of erection will commence early in January and operations are to be carried forward as rapidly as possible until completion. The contract price for the present is private, though the building will cost a large sum—according to the beautiful and massive designs.

#### Magnificent New P. O. Building.

The magnificent new postoffice building at San Francisco, Cal., has recently been completed at a total cost to the Government of a sum exceeding two and a half millions (\$2,500,000.00). This splendid structure is now being occupied.

Granite, marble, bronze and iron, are the principal materials used in the construction of this great public building. All the exterior walls are constructed of the finest California granite obtainable. This stone came from the great Raymond Granite Co., located in Madera County, Cal. Some parts of the exterior—about the entrances—have been wrought into very handsome, delicate and elaborate work—much finer than it was imagined, even the finest grade of granite was capable. Here and there marble has been used in some of the exterior trimmings.

Much of the interior work is of marble, nearly all of which was imported from the Old World. All of this stone is of the very finest and most beautiful grade that could possibly be obtained. To this bronze, stucco mosaics, fresco work, mahogany and the other tropical woods have been most artistically supplimented.



IMPOSING STRUCTURE AT SAN FRANCISCO, CAL.

With the possible exception of the Library of Congress, in Washington, there is no more beautiful public building in the United States than the new San Francisco postoffice.

On entering the immense building, the visitor is impressed by the big bronze doors with ornamental panels in high relief, and by the marble mosaics on the grained and arched ceilings of the corridors. The marble walls of the main corridor arc of the beautiful Pavonazzo, white strongly veined in black, with a base of verde antique, and capped with green Maryland. Pavonazzo is also used for the door casings. The floors are of ceramic tiling in intricately beautiful designs. The effect of the whole is very fine, but many will consider the corridor on the third floor even more elegant. It is a long colonnade flanked by 48 shining pillars of snow-white Italian marble.

Above the polished marble walls rises a plaster cornice, from which springs the grained and arched ceiling, exceedingly rich with plaster decorations. Under the windows is a series of radiators screened by bronze panels, and the floor is of ceramic tiles.

All of the rooms are finished in a very costly style. Some of them would exhaust all the superlatives in the vocabulary. The most superb are those assigned to the judges of the United States Court, which alone represent an outlay of about \$120,000.00. These apartments alone contain more than \$75,000.00 worth of the finest marbles.

The walls are of Pavonazzo, paneled and heavily moulded, the base being red Numidian from Africa. Columns of Pavonazzo and pillars for the reception of marble busts are placed at intervals around the room. From the composite capitals spring arches with highly decorative plaster work surrounding art-glass mosaics. Highly ornamental bronze doors swing in marble door frames deeply carved in fruit designs. The "bench" and desks are of superb Italian marble, with bronze tops. Back of the judicial bench is a design of colored marble and colored glass, inlaid on marble. The jury box is inclosed by a solid bronze railing, and a similar rail divides the bench and bar from the public. The ceiling lights are of art glass, and the floor is of ceramic tiling in rich designs. Heavy silk velour curtains temper the light from the windows, and the furniture is of solid mahogany.

The library alone contains \$3,000.00 worth of the finest selected East Indian mahogany, fashioned into book cases. The red Numidian mantel cost \$2,000.00. The floor is of parquetry, and the ceiling light of art glass. Of the many other rooms the same may be said. Some of the plaster modeling is so wonderfully executed in high relief as to excite the surprise and admiration of many eminent visiting architects.

In other departments, the interior ornamentation is in California curly redwood, the heavy ceiling beams being supported on fantastically carved consoles. There are seats of marble, pigskin panels above the bookcases, parquetry floor, and art-glass ceiling lights; again in other rooms beautiful Numidian marbles and East Indian mahogany inlaid with holly are the chief characteristics. The large apartment occupied by the Court of Appeals is simply sumptuous—a magnificent triumph of marble, bronze, plaster and inlaid work.

There has been much comment on the rich granite carvings ornamenting the exterior of the building. They are certainly exceedingly well executed, and old and experienced architects declare that they would have been considered impossible in granite; but these carvings have been accomplished, and will endure as a marvel and triumph to the old-time stone cutter. In fact, the San Francisco postoffice building in its entirety is a magnificent monument of what may be successfully wrought in granite, marble, bronze, the plastic art and in wood-work.

The Moretti Statuary and Marble Co., Talladega, Ala., has been organized with a capital stock of \$10,000.00. G. Moretti, J. E. Stone, and H. L. McElderry are the incorporators.

The Metropolitan Water and Sewerage Board of Boston has recently awarded the contracts for the Arlington Water Works Station to the Allis-Chalmers Co., Milwaukee. The equipment to be furnished is a horizontal, compound, condensing pumping engine, having a capacity of one and one-half million U. S. gallons in 24 hours, against a head of 290 feet. This engine is one of a new line of small horizontal engines designed recently by the Allis-Chalmers Co. to replace pumping engines of the direct acting type. The saving in steam consumption in this type of engine is from 20 to 50 per cent, compared with the direct-acting engine under similar working conditions.

## Construction

### Two Large Construction Jobs.

CONCORD, N. H., November 28.—The New England Granite Works have secured the contract to supply the granite for the Agricultural Department building in Washington, D. C. This makes the second large contract of this kind secured by this concern, the other being the Senate building contract secured some time ago. In order to fulfill these orders, the company will be compelled to employ a large force of men and are at present making arrangements for the installation of some new compressors.

### Big Paper Mill.

CHICAGO, ILL., December 4.—Mores & Co., contractors, report: "We are building for the Macsimbar Paper Co., of Ostego, Mich., a large paper mill to cost nearly \$300,000.00, which takes 2,500,000 brick with concrete cellar walls. We have the work well under way, but it will be practically an all winter job as one of the buildings is 75 x 485 feet, and three and five stories high. The machine room is 80 x 180 feet, the finishing room 75 x 100 feet, the boiler room 80 x 80 feet, and the engine room 60 x 80 feet."

### Building in New Hampshire.

CONCORD, N. H., November 6.—The contracting and building industry of the State has been a subject of inquiry of the labor commission. It gives employment to over 1,000 mechanics during the last fiscal year of \$2,260,448.00, which is a gain of \$614,148.00 over the previous year's business. The builders and contractors report a total capital invested amounting to \$511,660.00, and paid in wages to employees last year \$613,653.00, which was an increase of \$23,517.00 over the last report.

### Government Military Buildings.

SAN ANTONIO, TEXAS, December 1.—Mr. P. T. Shields reports that the United States Government have under construction at Fort Sam Houston, in and around San Antonio, several store houses and dwellings amounting to \$2,000,000.00, and have recently let contracts as follows: Eighteen quarters for the captains and lieutenants of stone and brick with slate roofs to cost \$200,000.00; two cavalry mess houses and kitchens, two artillery barracks, two cavalry barracks with lavatories, etc., for same to cost \$280,000.00; thirteen mess houses and kitchens to cost \$80,000.00; thirteen lavatories to cost \$50,000.00, and the plumbing in the above will cost \$175,000.00. The sewers and water piping will cost \$150,000.00; repairing on old quarters to cost about \$30,000.00; hospital buildings to cost \$75,000.00; the walks and other repairs to cost \$25,000.00, all to be completed within the coming year, and about \$810,000.00 of this work is still to be let.

### Big Canal to be Constructed.

PUEBLO, COL., November 20.—One of the largest works of construction ever undertaken in this part of the State is just getting under way. The project is the building of the Colorado Fuel and Iron Co.'s canal, to extend from Fremont County to the Minnequa works. The construction of this canal will cost one million dollars. The bids have been opened and several of the large contracts have been awarded. A large number of smaller or sub-contracts will be given out later which comprise considerable work and material. It is said work will begin at once and it will require about one year in which to complete the canal.

George H. Keys, of the Aetna Powder Co., Chicago, was in town the other day with his order book under his arm, and you know that people looking for dynamite and powder will be up against it.

### Building Projects.

Viola, Wis.—A brick and stone bank building will be erected by F. N. Morris.

Baltimore, Md.—The Colonial Trust Co. propose to erect a \$200,000.00 one-story bank building on Saratoga and Clay Streets.

Chicago, Ill.—Edwards, Duetsch & Heitman are to erect a building two stories in height, 132 feet by 181 feet, to cost \$50,000.00.

Xenia, Ohio.—Architect H. W. Owens has completed the plans for a three-story brick building 57 by 78 feet, to be erected at Detroit and Second Streets.

Buffalo, N. Y.—Plans have been filed by The General Railway Signal Co. for the erection of a three-story office building on Elmwood Avenue, to cost about \$20,000.00.

Dayton, Ohio.—Henry Hollencamp will build an addition to his present structure, the addition to be three stories in height, and to have a frontage on Market Street of 50 feet.

Omaha, Neb.—The Storz Brewing Co. are having plans prepared by Walter T. Misener for a new brick block 36 x 60 feet, two stories high, to be erected at Twenty-first and Cuming Streets.

Hutchinson, Kan.—The Richards-Scheble Candy Co. will erect a brick building along the Santa Fe railroad tracks. The building will be about 66 by 100 feet, and will be a basement and two stories high.

Santa Paula, Cal.—The Limonera Co. are making preparations to build a two-story pressed brick building with plate glass front, in this city. Contractor Giddings, of Venturs, will build the structure.

Chicago, Ill.—Plans are being prepared by Architect Arthur W. Buckley for the erection of an office building, four stories in height, of mill construction and all latest improvements, for Thompson-Reid Ice Cream Co.

Niagara Falls, N. Y.—The Polish people of this city will erect a handsome edifice at the cost of \$45,000.00, to be made entirely of cut stone and Ohio sandstone. Braas Bros. have the contract for the construction of the church.

St. Louis, Mo.—The Police Board have purchased a site for the erection of a new Central District Police Station. A three or four-story building, modern in every detail and equipped with every convenience, will be erected on this ground.

Peoria, Ill.—Leisy Brewing Co. have decided to erect the large six-story store and office building on the corner of Fulton and South Jefferson Streets; plans for which were drawn last summer. The building will be modern in every respect.

Buffalo, N. Y.—Esenwein & Johnson, architects, are preparing detailed plans for a twelve-story, fireproof structure to be erected by E. M. Statler. The building will be of steel construction with terra cotta facings, and will be one of the most modern in the country.

Asheville, N. C.—Architect Smith is completing plans for the erection of a five-story office building to be erected on North Main Street, 100 feet and probably 120 feet on College. The building is to be constructed of granite, and will be the first of this kind erected in the city.

Minneapolis, Minn.—Bertrand & Chamberlin have prepared plans for the new East Side Police Station. These plans have not been formally approved, but it is generally believed that they will be adopted. The station will be located on First Avenue between Fourth and Fifth Streets.

Denver, Col.—Architect E. F. Edbrooke has drawn plans for a four-story building to be erected by Spratlen & Anderson, to cost \$75,000.00. The material will be of red pressed brick with ornamental front of fancy brick of similar color, and the building will be modern in every respect.

Minneapolis, Minn.—Architect Cass Gilbert is designing the tallest office building in the world. The building will be 412 feet in height, will have thirty occupied stories. The building will have a frontage of 160 feet, rising twenty-one stories in regular office building style and is then surmounted by a tower to be filled with offices also. This new building will be six feet higher than the flag staff of the Park Row Building, New York City, which is at present the tallest occupied building in the world.



## RAILWAY AND HIGHWAY.

The Southern railroad will soon begin the construction of a branch road from some point between Boonville and DeConia to Folsomville, Ind. It will be on the Evansville and Jasper division.

The Kirchner Construction Co., of Cincinnati, Ohio, will likely enlarge their stone crushing operation within a short time. They expect to increase their output considerably next year. Their quarries are located some miles west of Cincinnati.

The People's Construction Co., Davenport, Iowa, large contractors, are engaged in the construction of several bridges and other work. One of these is the building of a bridge across the El river for the Southern Indiana railroad.

## Conditions Only Fair.

EAST SIOUX FALLS, S. D., November 22.—Lowe & Handley write us: "Considerable decrease in our business has been noted over last year. Prices are lower on paving material, but about on a level with last year on building trade. On the whole 1905 was not so good as the year 1904."

## New Railroad in the South.

BEAUMONT, TEX., November 12.—Something like 300 miles of railroad construction will be built by the Keneffick-Hammond Quigley Construction Co., of Kansas City, Mo., who have established a branch office at this place. The work mentioned is the construction of the Colorado Southern, New Orleans and Pacific railroad in Louisiana from Baton Rouge to De Quincy. This includes a branch line at Jennings, as well as work on the Beaumont, Sour Lake and Western railroad in Texas, from Sour Lake to Humble, also on the Orange and Northwestern railroad from Buna to Newton. This work calls for considerable material and the contracts will be let in the near future, which will be let under Standard Frisco specifications. The company desires correspondence at an early date and is prepared to take the matter up at once.

## To Operate on Large Scale.

HAGERSVILLE, ONT., November 1.—The Michigan Central Railroad Co. have erected a crushing plant at this place this summer, putting in one No. 7½ and one No. 5 Austin crusher. They propose using compressed air for their drills, but at the present are using steam. The plant is now about ready to start and when the quarry is developed the product will be used for ballast for the entire Canadian division of the road as well as for concrete for the tunnel under the Detroit river. The quarries of the Hagersville Contracting Co. have been very busy all summer crushing stone for Windsor, St. Thomas, London, Niagara Falls, Toronto and other points. The superior quality of the stone at this point is being appreciated more every year and the sales have correspondingly increased.

## A Notable Feat Successful.

NIAGARA FALLS, N. Y., November 15.—The immense concrete column which was built by the Commissioners of Victoria Park, on the Canadian side of the river, was erected for the purpose of increasing the depth of water in the water works intake. This was recently tipped over and was fully up to the expectations entertained by the commissioners.

The height of the column was fifty feet above the ground level and it weighed something like 200 tons. Through the center of the column is a steel chain which weighs 800 pounds, the object of this chain being to hold these sections in place after being tipped over. This idea was suggested by Engineer Isham Randolph, of Chicago, and is the first of its kind ever erected. Mr. Randolph was present at the event and a number of other prominent men aside from the thousands of witnesses were in attendance. In order to properly complete the operation of tipping the column over, it was necessary to place three jacks under the timbers of the trestle which gradually raised the column in such a position as to permit of its falling in the proper place. Wooden wedges were inserted on one side of the column at every eight feet of its height and when it fell the crowd cheered lustily.

The water in the intake raised 10½ inches shortly after the column made its plunge. It is expected that the increase in the depth of the water will be very perceptible and Engineer Randolph is more than pleased with the results obtained. The new dam is something like 600 feet above the brink of Horse Shoe Falls.

## Builders' Supplies

## ASSOCIATION ENGAGEMENTS.

All the members and parties interested in the industries indicated should make arrangements to attend the conventions as detailed below:

Just as we go to press December 5, 6, 7, the convention of the National Association of Manufacturers of Sand-Lime Products is coming together at the Hotel Cadillac, Detroit, Mich. The next issue of Rock Products, which will be brought out December 22, will contain a report of this meeting, giving all the important points and interesting features developed there.

The American Association of Portland Cement Manufacturers will convene at the Hotel Astor, New York City, December 12.

The Indiana Lumber Dealers' Association, Indianapolis, Ind., January 9, 10, 1906.

The National Association of Cement Users are to meet at the National Guards Armory, Milwaukee, Wis., January 9, 10, 11 and 12, 1906.

The Union Association of Lumber Dealers, Cleveland, January 16, 17, 1906.

The Northwestern Lumberman's Association, Minneapolis, January 16, 17, 18, 1906.

The Northwestern Cement Products Association will hold its annual convention at Minneapolis, Minn., January 17, 18 and 19, 1906.

The National Lime Manufacturers Association will meet in convention at the Great Northern Hotel, Chicago, Ill., January 18 and 19, 1906.

The Southwestern Lumberman's Association, at Kansas City, January 23, 24, 1906.

The National Brick Manufacturers Association will hold its mid-winter convention at Hotel Walton, Philadelphia, Pa., February 5, 1906.

The National Builders' Supply Association will hold its annual convention at the Bellevue-Stratford, Philadelphia, Pa., immediately following the brickmakers' meeting, February 6, 7 and 8, 1906.

Nebraska Lumber Dealers' Association, Omaha, February 7, 8, 1906.

Illinois Lumber Dealers' Association, Chicago, February 13, 14, 15, 1906.

## Making Fire Brick in California.

In the very near future, California will not only be able to furnish all the fire brick that may be used in that State, but also to largely supply all the Western world—even beyond the seas.

There is now in process of construction and nearing completion, the largest and most complete plant for the reduction of magnesite in the United States—if not in the whole world—in the city of Oakland, Cal. The erection of this great plant, and its proper equipment involves several hundred thousands of dollars. Work on this outfit was commenced about a year ago.

Magnesite, which is a white porcelain-like mineral, is usually associated with serpentine, talos slates, and dolomite. The magnesite of commerce comes from several localities; notably Veitsh, in Styria, Austria, where it occurs in conformable beds in a silurian formation; at Frankenstein in Silesia, where a very pure variety is found; at Bolton, Canada, there is a ledge 60 feet wide which is tinged with green by chromium. This quality, however, is not very good. In the Red Mountain mining districts in Santa Clara and Stanislaus Counties, California, is found the largest known deposits in the world. Here there are several ledges from 20 to 60 feet wide, and of very pure quality. Magnesite is also found in Napa, Sonoma, Fresno, Mariposa, Monterey and San Luis Obispo Counties, California, but in comparatively limited deposits.

The commercial uses of magnesite are many. Its principal use, however, is in the manufacture of fire brick. It is also employed as an agency in the bleaching of paper, and for making an excellent artificial stone for interior building decorations. In brick manufacturing, the magnesite is first ground up fine and then thoroughly calcined, the gas being collected and sold for charging mineral waters. The gas is also used in cold storage plants instead of ammonia. The remainder—resulting magnesium oxide—is mixed with a binding material, pressed into brick, and burned.

Ten years or more ago, an immense deposit of magnesite was found in both Santa Clara and Stanislaus Counties, Cal. This section lies about thirty-one miles southeast from the town of Livermore, in Alameda County. The deposit covers between 600 and 700 acres, and a careful examination of the outcroppings shows that the ledge varies in width from 30 to 150 feet, lying between two well defined walls of serpentine, and is of unknown depth. Literally, there are mountains of this valuable mineral, and it may be quarried like any ordinary stone.

For several years, the property passed through different ownerships—its real value not being fully understood. During that time, magnesite was being taken from the vast deposit in limited quantities—perhaps at the rate of 3,000 tons per month. This output was sold and used principally for bleaching paper.

More recently, the property came into the ownership of the American Magnesite Co. This is an Eastern corporation, composed of Chicago, Cleveland and Sharon (Pa.) capitalists. With a single exception, none of its stock has been sold in California. The vast deposits of magnesite now owned by this new corporation are valued at several millions. Before the property was acquired by the new company, Dr. Gerlach was brought over from Austria to make a careful personal examination of the deposit—both as to its extent and the quality. Dr. Gerlach is an eminent expert on such questions, of world-wide fame. He came to California, visited the Red Mountain deposit, and made long and thorough investigations. His report to the company was of the most favorable nature—both as to the very superior quality and the exhaustless extent of the mineral. He declared that there was enough magnesite to last more than a century. On his report the company made the purchase and proceeded at once with the work of development, and the erection of an immense plant to reduce the mineral.

The nearest railroad line to the deposit is at Livermore; but a fine roadway has been opened up to the mines, over which traction wagons pass with ease and rapidity. By this means great quantities of the magnesite are being transported down to the railway. In the course of a year or so a branch railroad will be built into the mines. At present an overhead tramway is in operation—extending from the place where the magnesite is being quarried, down to the foot of the mountain, about one-half of a mile.

Within perhaps a month, the big plant at Oakland will be in full blast, when the work of reducing the mineral will be in operation. Facilities are extensive for the manufacture of all kinds and sizes of fire brick. The company will commence with the shipment and reduction of 200 tons of magnesite per day; but they expect to soon increase that amount to 500 tons per day. If the demand justifies it, they will handle 1,000 tons daily; but to do so will have to greatly enlarge their present plant. They will have facilities for manufacturing enough fire brick to supply all the Pacific Coast, as well as to ship to Japan, Australia, China, Hawaii, Mexico, Central and South America, and other points of the south and Orient.

The plant is very favorably located, having connection with both rail and water. A tract of 30 acres has been purchased by the company on a part of which the big works stand, fronting the bay. The principal industries to be conducted will be the manufacture of calcined magnesite for the steel and iron arts, and the making of a very high grade of fire brick. All the raw material will be brought from the Red Mountain district, in bulk.

The fire brick making department is under the control of the Rose Fire Brick Co., which company has already contracted with a large mining corporation for a long term for a large part of its output.

As a result of the acquiring of the great Red Mountain deposit, there are several companies formed, which are all related, the stock of the various organizations being practically owned by about the same people, though they are separate and distinct corporations. The Magnesite Dock and

Land Co. own the thirty acres; Mr. G. Watson French, of Chicago, is the president of the American Magnesite Co.; Mr. J. V. Rose is president of the Rose Fire Brick Co.; H. C. Stillwell, president of the Dock and Land Co.; J. M. Murdock is secretary of all three companies; Wallace Taylor is president of the Carbonic Gas Co., and Martin French president of the American Chemical Co. All of these several important industries are the direct outgrowth of the output of the reduction of the raw magnesite.

Calced and reduced magnesite is also an important material in other building processes. There seems to be no end to the combinations into which it will enter. It can be made into all sorts of material for interior decorations—mosaics, ornamental bric-a-bracs, wainscotings (mixed with broken marble or sea shells), or any other kind of stone; can be cast into any form, or size, and is susceptible of receiving a very high polish; may be used for flooring—tessellated, variegated, etc. It can be made in any color desired, and is very hard and durable.

Again, it may be used in giving a very fine, smooth, hard surface—veneered like—to common ordinary clay brick; in fact to any and all kinds of brick. Such coatings give the exterior surfaces as fine a finish as the best pressed or terra cotta bricks. One peculiarity of such coatings is that the brick continually "sweats"—exuding a dew-like moisture, which puzzles even the experts.

Calced magnesite with certain combinations may be made into roofing. It will even combine with common sawdust. Though it may be regarded in some sense as a metal, yet magnesite never oxidizes, and it resists elemental erosion and frictional wear remarkably well.

The discovery and working of this great magnesite deposit in the Red Mountain regions, is regarded as one of the most important things that have happened to California for a great many years. It means the development of a vast industry—particularly along building lines and other departments of iron and steel arts, etc. Its commercial value and importance to the State can hardly be estimated.

#### WITH THE DEALER.

Cyrus G. Jones, dealer in lime, brick, plaster and cement, at Marysville, Ohio, has sold his plant and business to Mr. H. Turner, of that city, who took possession November 1. Mr. Jones will begin operations in a larger place in the same business this spring.

#### An Old Lime Concern.

QUINCY, ILL., November 12.—Mr. W. D. Meyer is the manufacturer of the well known Marble White Lime. This is one of the oldest lime concerns of the country, Mr. Meyer's father having begun operations here in 1860. The present Mr. Meyer, his son, has been in charge of the business for the last six years. They have one kiln near the office which is at 115 Delaware Street, and two south of town near the quarry. The output of the three kilns is 1,000 barrels per day. There have been many changes in the manufacture of lime since Mr. Meyer's father first started in the business, as he began with what was then known as the pot kiln. The Marble White Lime has a very large sale, and is undoubtedly one of the best limes on the market to-day.

#### P. H. Menke Stone and Lime Co.

F. M. Menke Stone and Lime Co., who are general contractors and lime manufacturers, besides being dealers in all kinds of building material, have their own lime kilns below town, three warehouses and a cut stone plant, where they handle Bedford stone principally.

The Remington-Macomber Co., of Albany, N. Y., has been incorporated with a capital stock of \$25,000.00 to do general building business, including railroad and other forms of construction. Eliphaz Remington, New York City; G. B. H. Macomber, Boston, Mass.; Leslie Taylor, Albany, N. Y., are the incorporators.

B. Gilpin Smith Co., 33 North Second Street, Camden, N. J., has been incorporated at \$50,000.00, to deal in builders' supplies of all kinds, and the incorporators are: N. G. Smith, Bernard Waring and William Waring.

## Publishers Department

### Large Machinery Order.

The interests controlling the Bedford Quarries Co., of Bedford, Ind., and the Ohio Quarries Co., of North Amherst, Ohio, with head offices at Chicago, are planning to largely increase the output of their limestone and sandstone properties at the above points. The new equipment required at the quarries next year will include eighteen Sullivan stone channelling machines, which have just been ordered through Mr. Geo. D. Hunter, the representative of the Sullivan Machinery Co., at Bloomington, Ind. These machines are of the class "Y," rigid head type, with boiler. This channeler has



SIX SULLIVAN Y CHANNELLERS, BEDFORD QUARRIES CO.

been developed especially for the needs of the building stone districts, and for several years has been the standard machine in use. The two companies above named have made exhaustive tests of the various channelers on the market, and the Sullivan type was selected solely on account of its superior cutting capacity, and its economy and convenience in operation. The Bedford Quarries Co. already has ten machines of this type in use, while the Ohio Quarries Co. has eight similar machines, especially adapted for cutting sandstone, at its North Amherst quarries. This is the largest order for channelers ever placed in the history of the quarry business. The Consolidated Stone Co. has also ordered four of the new class "Y" Sullivan oolitic type channelers with 8 inch cylinders, for use at its quarries at Bloomington and Bedford. This company will then have twenty-one Sullivan machines at these two properties. The New York office of the Sullivan Machinery Co. has also secured from F. A. Maselli & Co. an order for two Class Y-S channelers and several rock drills, for use at Rochester, N. Y., on the Erie Canal improvements.



SULLIVAN CLASS Y CHANNELLERS, NORTH AMHERST, OHIO QUARRIES CO.

The Power and Mining Machinery Co., Cudahy, Wis., announce that Mr. N. D. Phelps has been appointed manager of sales for their mining, crushing and cement machinery department of their business, to succeed Mr. T. H. Tracey, who has resigned.

The Indiana Road Machine Co., Fort Wayne, Ind., manufacturers of a high grade and complete line of machines for road building and street construction, report a large increase in their business for the year just closing, and still the activity continues. They enjoy a gratifying feature in their business, consisting of testimonials from customers who use their machinery, one of whom recently said: "We can frankly say that we feel we have bought the best type of crusher on the market and have nothing but praise to offer for the little No. 8." This is a steel frame crusher which has recently been added to their line, and it is especially designed for the use of the general contractor and operator in concrete.

The Miracle Pressed Stone Co., Minneapolis, Minn., announce a new specialty in the Miracle Bronze Tuck Pointing Tool for beading between the joints of brick, stone and concrete walls. It only costs a dollar bill, and the masons who have used it proclaim it is an indispensable tool.

The Henry Martin Brick Machine Mfg. Co., the well known clay working engineers of Lancaster, Pa., have worked out a very attractive brick machinery proposition, which is well worth the attention of lime manufacturers and quarry operators, by which strippings can be used up in a very profitable way. The installing of a little brick plant can, they claim, turn into profit this great expense to most of the large quarry operations, who, at the present time consider the stripping operation as a dead loss.

The partnership heretofore existing between Arthur B. Cochrane, Geo. W. Long and Isaac H. Coulborn, under the style of A. B. Cochrane & Co., Chrisfield, Md., has been dissolved by mutual consent. The builders' supply business heretofore conducted by A. B. Cochrane & Co., will be continued under the firm name of W. C. Muir & Co., at the old stand, and will be composed of Wm. C. Muir, George W. Long and Isaac H. Coulborn.

Toledo Pulp Plaster Co., Toledo, Ohio, report that owing to the rapid growth of their business, they have decided to enlarge the capacity of their plant for the manufacture of Toledo elastic pulp plaster, which they state has given universal satisfaction wherever employed.

The Sullivan Machinery Co. announces that its St. Louis office, Mr. P. F. Jarvis, manager, has moved into larger quarters in order to give better attention to the increasing business of the district, for which this office is headquarters. The new address is Rooms 1125-A to 1127 Missouri Trust building.

### The Deserted Emery Mines of Massachusetts.

Among the Berkshire Hills in Massachusetts, in the town of Chester, lies an emery mine which has figured prominently in the mineral history of the United States. Although the mine has been valued at from \$300,000.00 to \$1,000,000.00, it now lies idle with little prospects of ever being reopened.

About five years ago the emery trust bought it for nearly half a million dollars, and at once all work was stopped, the men discharged and the mine boarded up. This was done to check competition. In the meantime emery is being brought from Turkey and other foreign countries as ballast. The foreign article is inferior, but without competition it goes well enough on the market, and it can be mined and imported at less expense than it costs to get out the emery in Chester.

The closing of the mine was a great blow to the town. Ten years ago 175 men were working in the mines and mills, an emery wheel factory was built, and new industries were springing up all around. To-day not a dozen men are employed in the mills, and the town has fallen back to where it was twenty-five years ago.



### Air Power Equipment of the Union Pacific Shops at Omaha, Neb.

Compressed air has become as essential in railway shop work as steam for power or electricity for lighting. Hardly a process of locomotive or car building and repairing is not aided by some form of air tool. The air compressor, as the source of power for these pneumatic tools, assumes an important place in the shop equipment.

In the shops of the Union Pacific Railway at Omaha, Neb., air power has been carried to a degree of application probably equalled in no other shop of the country; and the extent of its use has made necessary an air compressor installation ranking among the largest for this purpose.

The power house is at the south of the main group and was one of the shop buildings under the scheme in effect before the late improvements and rearrangement. This fact accounts for some features of power house arrangement which differ from usual practice where the building is designed to suit the work. A longitudinal fire-wall separates engine and boiler rooms. The boiler equipment was selected to meet the conditions of very limited space. For this reason it is made up of six marine shell boilers, with internal fire-boxes. These units are rated at 250 h. p. each, giving a total capacity to the plant of 1,500 boiler horse power. Hand firing is employed, the coal being dumped on the fire-floor from cars on the side-track paralleling the power house. Steam pressure carried is 150 pounds on the boiler gauges. Boiler room auxiliaries are grouped at the north end of the battery of boilers and comprise the usual equipment of feed pumps, heaters, etc.

The main steam header for the power plant is in the boiler room, in the rear of the boilers. It is sub-divided and protected by valves according to the best practice. All engine room exhausts unite below the floor in a header leading to the exhaust head, above the roof. From the steam header, steam pipes to all engine-room units pass through the fire-wall and lead to the cylinders through wide-sweep bends. Separators are on each steam pipe just within the engine room, and all steam piping is protected by insulating covers.

The engine room contains two air compressors built by the Ingersoll-Sergeant Drill Co., of New York. They are of duplex pattern, with cross-compound steam and air cylinders. Steam cylinders are sheathed and insulated, equipped with Meyer balanced adjustable cut-off valves. A reheating steam receiver between high and low pressure cylinders draws live steam from a bypass inside the throttle. The standard Sergeant "Air Ball" governor regulates speed and pressure by throttling the steam supply.

High and low pressure air cylinders are water-jacketed on heads and barrels. Both cylinders are fitted with the Sergeant piston inlet valve. Discharge valves are of vertical direct-lift pattern, readily accessible. A somewhat novel style of air intake is used. The inlet tubes of the low pressure cylinders are surrounded by a sheet iron case, leading to a vertical riser of sheet steel pipe which connects with a main intake header carried to an opening outside the engine room on the northeast corner. Traps in the intake casing give easy access to the piston tube and stuffing box.

Each compressor has a free air capacity of 2,216 cubic feet per minute, when running at 120 R. P. M. The air pressure is maintained at about 110 pounds on the receiver, giving an average working pressure of 100 pounds throughout the shops.

The main air pipe passes underground to the shop buildings and radiates to the several departments. All piping in the buildings—air, water and gas—is carried in shallow conduits in the floor with removable covers. Branches with valves rise at each post for connection with shop appliances.

The applications of air in the shops are those common to railway repair work. In the locomotive shop, air drills in various sizes are used for drilling, reaming and tapping; chipping and riveting hammers have their usual place; pneumatic stay bolt cutters assist in dismantling fire boxes. A small rotary air motor drives gearing for turning locomotive drivers in setting valves. Another operates a cylinder boring machine. Air hoists and air jacks assist in the handling of heavy parts. Pneumatic presses find a ready place in certain classes of work. In the air brake testing department, air pressure is drawn from the main plant. An interesting device here is a pneumatic pressure coupling which holds the valves under test against the supply pipe, saving the time and trouble of screwing in place.

In the yards, warehouses and foundry air hoists appear on every hand—silently, easily swinging great loads. In the car shops pneumatic drills find manifold uses, and air jacks assist in many operations. Cars are sand-papered, and paint is removed and applied, by air appliances. Practically all cleaning is done by the air blast.

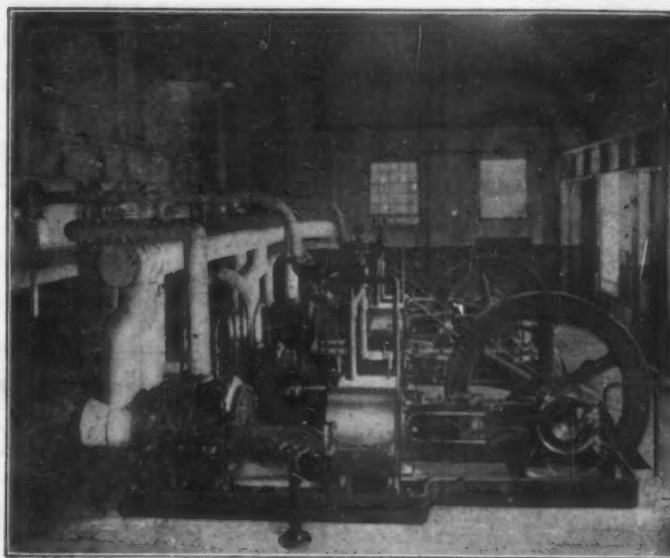
The Mosaic Tile Co., Zanesville, Ohio, report a steady growth in the use of their building material which is being used more and more extensively for veneering, floors, steps and ornamental pavements of every description. The number of dealers who carry a stock of this line of goods is constantly increasing, and it is a money-maker wherever it has been offered.

The Portland Pembina Cement Co., of Grand Forks, N. D., has changed hands and Dan F. Bull has become the owner of it. The company has operated cement mines in Cavalier County, North Dakota, for several years, and has a mill of one hundred barrels daily capacity.

George Oldham & Son were as genial as ever when a Rock Products' man called upon them at their manufacturing plant in Frankford, Pa., a few days ago. They have just got out a small surfacer for small dealers who have a 6x6 air compressor. The surfacer is small enough so that two or three hand tools can be supplied along with the surfacer. The hammer can be taken from the frame and used as a plug drill. They call it the No. 3 combination. They took a large order for eight surfacers and 30 drills from a firm in Sweden last month. They also shipped 16 surfacers, 34 drills, and 75 hand tools to the Milford Pink Granite Co., at Milford, Mass.

### Conditions in the West

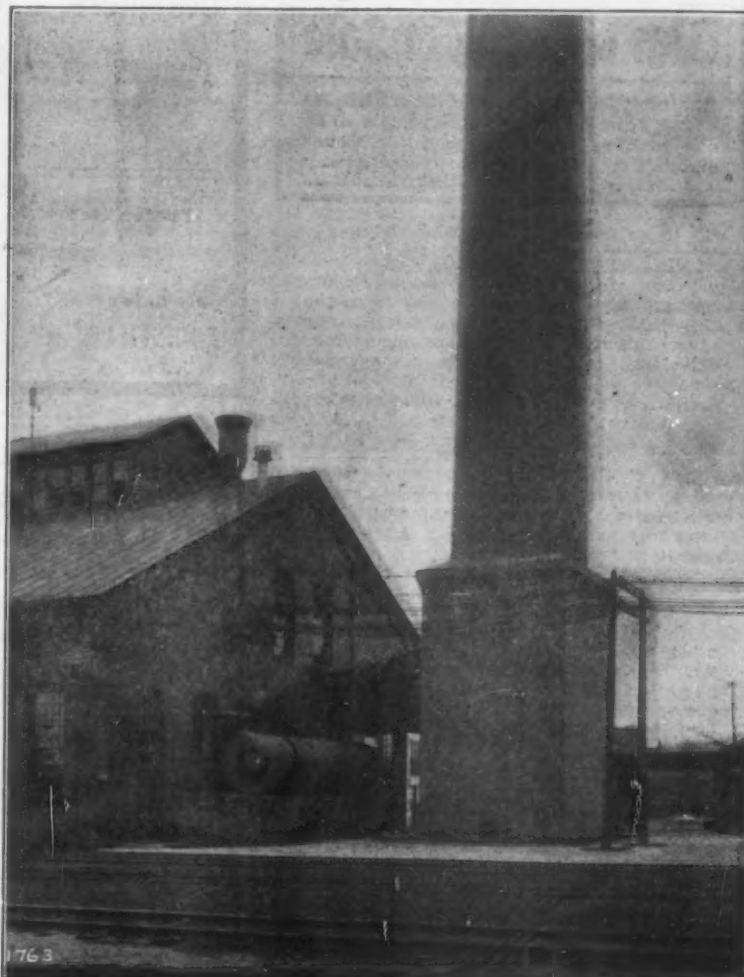
SAN FRANCISCO, November 24.—There has been very little improvement in the cement situation in San Francisco during the past month. The great demand for foreign cement continues, but the shipments which arrived during November had been sold in advance and did not make the market much easier. The movement of foreign cement from Puget Sound to San Francisco continues, but the aggregate amount is small compared with the needs. Prices range from \$3.75 to \$4.00 for the foreign article according to the way the cement is shipped. Several ships are overdue with cement from Germany. Domestic cement, manufactured in California, sells at about \$2.10, but the amount delivered in the city is very small. Some of the manufacturers say that the shortage



AIR COMPRESSOR IN THE U. P. SHOPS AT OMAHA, NEB.

of railroad cars is responsible for this, as they are now producing more than enough to fill orders.

Building in San Francisco has kept up well, the record for November being slightly less than for October, when the building permits aggregated nearly \$1,500,000.00. The total for the first ten months of the year exceeded \$18,000,000.00. The shortage of cement has checked operations in sidewalk making and some other lines, which require a good supply of materials at reasonable prices. The opening of the rainy season which appears to be at hand, will reduce the building demand somewhat and enable the cement dealers to catch up with some of their orders.



PRIMARY RECEIVER 6x30 FT., AS MOUNTED OUTSIDE OF THE POWER HOUSE, U. P. SHOPS, OMAHA.

**Granite Litigation.**

Victor I. Commoch, of New York, prays that O. W. Norcross, of Worcester, president of the Norcross Bros. Co., and the Milford Pink Granite Quarries be given an accounting and the property be turned over to the Milford Pink Granite Quarry Co., for the difference between \$1,425,000.00 and \$1,254,400.00 in order to pay the debts of the Milford Co.

It appears that Norcross Bros. Co., a great building concern, executed contracts for the benefit of the building corporation and the stockholders in the Milford Pink Granite Quarry Co. don't like it. At the time the contracts were made Orlando W. Norcross was president of both companies, and the amount concerned was for granite for the contract of the Pennsylvania, New York and Long Island railroad to furnish quarters for their terminal in New York. This is no doubt the outcome of the financial difficulties of Norcross Bros., in New York some time ago, and at that time, as to-day, the Norcross Co. have very much more assets than liabilities, but owing to large amounts tied up in the contracts in large buildings they are embarrassed.

The present litigation is an endeavor on the part of Victor I. Norcross, owner of 800 shares of stock in the Milford Pink Granite Quarry Co. and the Franklin Trust Co. to transfer the profit which they claim should accrue to the Granite Co. rather than to the building company.

I presume, however, the court will decide the Building Co. have a right to earn a profit on business of nearly \$1,500,000.00 and \$200,000.00 would only be a reasonable profit on same.

Mr. J. H. Hussey, representing Barclay Bros., Barre, Vt., extensive operators in granite for monumental purposes was among the recent visitors of this city, visiting the trade in the interests of his company. Mr. Hussey reported that conditions throughout the country were in a satisfactory way and that the demand for monumental stone has been exceptionally large this past season.

**Wanted and For Sale**

One insertion, 25c a line; Two insertions, 50c a line; Three consecutive insertions with no change in the composition, 50c a line. Count eight words to a line; add two lines for a head.

**WANTED-HELP.**

AN ENERGETIC MAN who understands clays and and clay working machinery; must have experience and possess executive ability to manage a large brick manufacturing plant where several hundred men are employed; any one having ambition, and confident that he can successfully undertake such a position would do well to communicate at once, giving particulars as to experience, salary expected and references. Address CONTRACTOR, 2915 Broadway, New York City.

SUPERINTENDENT for stone quarry with output of 4,000 tons per day; none but competent men need apply; must be familiar with dinkeys, track, air and steam shovels. Address C-Z 3, care Rock Products.

**BUSINESS OPPORTUNITIES.**

GRANITE QUARRY AND FINISHING PLANT, owned by Abilene Granite Co., of Abilene, Kan. Well equipped. Will be leased on favorable terms for a period of three or five years. The quarry contains twenty acres of the noted American Rose, a red, pretty granite. Equal to any Swedish granite. The quarry is equipped with a two-thousand-dollar steam hoist, sixty-five foot derrick, 60 horse power boiler, good steam drill, air compressor caps. The plant is located 2,400 feet from the quarry, with a gradual slope to the plant, which is located on a block 300 feet on Main Street and the Rock Island right of way. The office, the shed and engine house were built at a cost of over \$3,000.00, equipped with ninety horse power boiler, air compressor, air tools, worth \$1,500.00. Traveling crane on 96 foot track, ten by ten timbers and heavy iron. Four large polishing machines, yard derrick and loading derrick, column cutter and polishing heads. This property can be leased at low rental. Good opportunity to purchase. Address J. T. BLAKE, Abilene, Kan., or K. C. COX, Granite, Okla.

CEMENT POSTS. Make them with the Hoosier Post Machine; simplest and most practical in use; price reasonable. C. L. CATHERMAN, Elkhart, Ind.

TWENTY THOUSAND DOLLARS will purchase an active interest in a well established and profitable Kentucky fire brick and paving brick manufactory. Good position open to purchaser; splendid opportunity for a good man. Address C-Z 4, care Rock Products.

FOR SALE—A fine granite quarry, over forty acres of land; topping 1 to 2 feet; face of quarry 1,500 feet in length and 40 feet in height; in connection with crushing plant containing No. 8 and 5 Gates crusher, 960 cubic feet Sullivan air compressor, thirty steel cars, 400 foot span Lidgerwood cable, 7 drills, steel for drills, two 150 h. p. New Erie boilers, fourteen houses, ten head stock, carts and tools. Plant employing 100 men, wages \$1.00 per day. We have large ballast contracts. Plant will be sold practically at cost; excellent reasons for selling; great opportunity for right men. Address A Z 4, care Rock Products.

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Sculptors  
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Originals supplied  
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Stock for Monumental purposes. Any  
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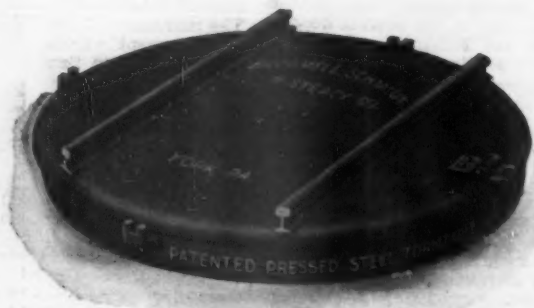
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100 single deck cars, 3 transfer cars, 1 centrifugal pump. Address O. W. DUNLAP, Bloomington, Illinois.

SEVERAL second-hand Pulsometer pumps, boilers, engines and miscellaneous machinery. Address MASLINS, 165 First Street, Jersey City, N. J.

FOR SALE—AIR COMPRESSOR—16 in. x 16 in. x 18 in. stroke, Blake, steam driven, fly wheel type; capacity, 500 cubic feet per minute; perfect order; bargain for early sale. Address L. D. POLLARD, 44-46 So. Jefferson St., Chicago, Illinois.

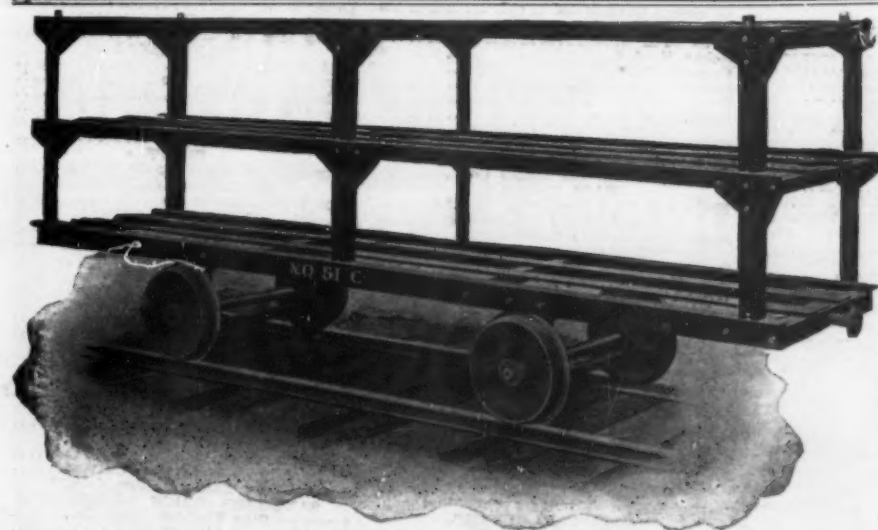
TWO second-hand horizontal tubular boilers, 60 inches diameter, 24 feet long, each with 18 six-inch flues. Flues only one year old. Allowed pressure 90 pounds. Reason for sale is that we are installing a high pressure plant. If desired we have also fronts, breeching and stack 42 inches diameter by 50 feet high. CHRISTY FIRE CLAY CO., Morgan Ford Road and Gravois Ave., St. Louis, Mo.

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A SMALL 36-INCH GAUGE LOCOMOTIVE, must be cheap, also rails and cars. Address C-Z 2, care Rock Products.

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INTEREST in lime manufacturing plant in Wisconsin, consisting of ownership of  $\frac{1}{2}$  interest and leasehold on other half interest, together with individual personal improvements, machinery and equipment. Address C-Z 1, care Rock Products.



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## Business Directory.


The names opposite which numbers do not appear, the advertisements will be found in the second issue of the month.

AIR COMPRESSORS.		CONCRETE MIXERS.		GRANITE MONUMENTAL.		Fowler & Pay	
Allis-Chalmers Co.	6	Anderson Sons Co.	43	Abern, James	46	Grand Rapids Plaster Co.	9
American Air Compressor Works	2	Contractors Supply and Equipment Co.	43	Abbiatti, E. & Bros.	45	Mastic Wood Fiber Plaster Co.	8
Ingersoll-Rand Co., New York, N. Y.	2	Municipal Eng. and Contracting Co.	43	Anderson Bros. & Johnson	45	Meyer, C. B. & Co.	51
Kotten, H. G.	7	Mackay, A. D. & Co.	48	Anderson, A. & Sons	2	New Albany Wall Plaster Co.	2
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Cement Machinery Co.	46	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	American Clay Working Mch. Co., The	46
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Ideal Concrete Machinery Co.	46	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	SAND PUMP.	
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Standard Sand and Machinery Co., The	46	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	SAWS DIAMOND.	
Stringer Machine Co.	46	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	Anders, Geo. & Co.	46
Stevens Cast Stone Co.	46	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	Meyers, Willard F.	46
Walton Stone Machine Co.	46	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	SCREENS.	
Winget Concrete Machine Co.	46	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	Den Moines Mfg. & Supply Co.	46
Wichita Coal and Material Co., The	46	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	Ersham, J. B. & Sons Mfg. Co.	8
CEMENT BRICK MACHINERY.		Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	Jeffrey Mfg. Co.	8
Queen City Brick Machinery Co.	46	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	Power and Mining Machinery Co.	8
Reading Brick Machinery Co.	46	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	Seibel-Suesendorf Copper and Iron Mfg. Co.	7
Seamans, E. W.	46	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	SCULPTORS.	
CEMENT DEALERS.		Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	Rizzi Bros.	46
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CEMENT GERMAN.		Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	SECOND-HAND MACHINERY.	
Western Lime and Cement Co.	46	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	Contractors Supply and Equip. Co.	42
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Allis-Chalmers Co.	6	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	SEWER PIPE.	
F. C. Smith & Co., New York, N. Y.	8	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	American Sewer Pipe Co., Pittsburg, Pa.	46
Furman Construction Co.	8	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	SLATE.	
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Kent Mill Co., New York, N. Y.	8	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	New York Consolidated Slate Co.	42
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Sterling Mill Co., Boston, Mass.	8	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	SOAP STONE FINISH.	
W. D. Dunning, Syracuse	8	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	American Soap Stone Finish Co.	46
CEMENT PIPE MOULDING PRESS.		Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	STEEL LATH.	
F. L. Smith & Co., New York, N. Y.	8	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	Bostwick Steel Lath Co.	46
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Anderson Sons Co.	46	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	Carthage Superior Limestone Co.	51
CHANNELING MACHINE.		Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	Chickamauga Quarries Co.	50
Ingersoll-Rand Co.	8	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	Caden Stone Co.	1
Steam Stone Cutter Co.	1	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	Central Ohio Lime & Stone Co.	1
Sullivan Machinery Co.	5	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	Eichel Lime and Stone Co.	1
CHILLED STEEL SHOT.		Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	Fowler & Pay	46
Harrison Supply Co.	33	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	The Norris & Christian Stone and Lime	46
CLAY WORKING MACHINERY.		Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	STONE LINING.	
National Brick Machinery Co.	46	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	Paxson, J. W. Co.	46
Ohio Ceramic Eng. Co., Cleveland, O.	46	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	STONE WORKERS SUPPLIES.	
CONCRETE CONSTRUCTION MACHINERY.	46	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	Bowers, R. C., Granite Co.	50
Amer. Hydraulic Stone Co., Denver, Col.	46	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	Harrison Supply Co.	33
Besser Mfg. Co., Alpena, Mich.	46	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	Pitkin, W. H. & Co.	52
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Concrete Stone and Sand Co., Youngs-	46	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	Dugan, John H.	43
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Hayden Aut. Block Mach. Co., Columbus,	46	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	Lincoln Iron Works	2
Ohio	46	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	Stone Workers Supply Co., The	46
Ideal Concrete Mch. Co., South Bend, Ind.	46	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	Stone Working Mac. Co.	4
P. B. Miles Mfg. Co., Jackson, Mich.	46	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	STONE TOOLS.	
Noyes F. Palmer, Brooklyn, N. Y.	46	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	Ingersoll-Rand Co.	8
H. S. Palmer, Concrete Bldg. Co., Wash-	46	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	STONE WORKING MACHINERY.	
ington, D. C.	46	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	Lincoln Iron Works	2
L. L. Parry	43	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	New Albany Mfg. Co.	55
Pettyjohn Bros., Terre Haute, Ind.	46	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	Stone Working Machine Co.	4
Queen City Brick Mch. Co., Traverse City,	46	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	Shaw, Willis	5
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Wichita Coal and Material Co., Wichita,	46	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	Ohio Retarder Co., The	46
Kansas	46	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	TUBE MILLS.	
Winget Concrete Mch. Co., Columbus, O.	46	Drill, R. D. Co.	49	HOISTS DOUBLE FRICTION.	46	Allis-Chalmers Co.	6



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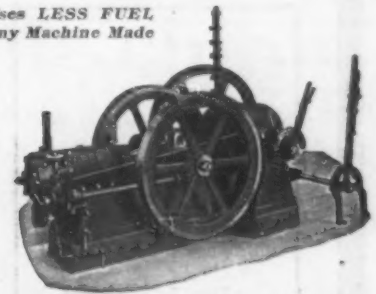
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**CHEAP POWER**  
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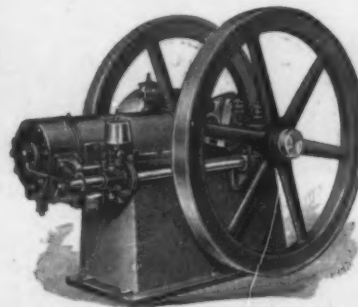
**BACKUS GAS ENGINES**

ONE POUND OF COAL PER HORSE POWER PER HOUR

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Fills Your Gas or Gasoline Engines without the Aid of Batteries  
It is better and more durable than any Dynamo. Its governor regulates the speed regardless of speed of fly wheel. Its governor adjusts to imperfect fly wheels. Its governor insures a constant and uniform spark. The spark does not burn the contacts of the engine. All strains are removed from the bearings of Magneto.

Fully Guaranteed. **Henricks Novelty Company,**  
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Stacks! Tanks! Kilns!

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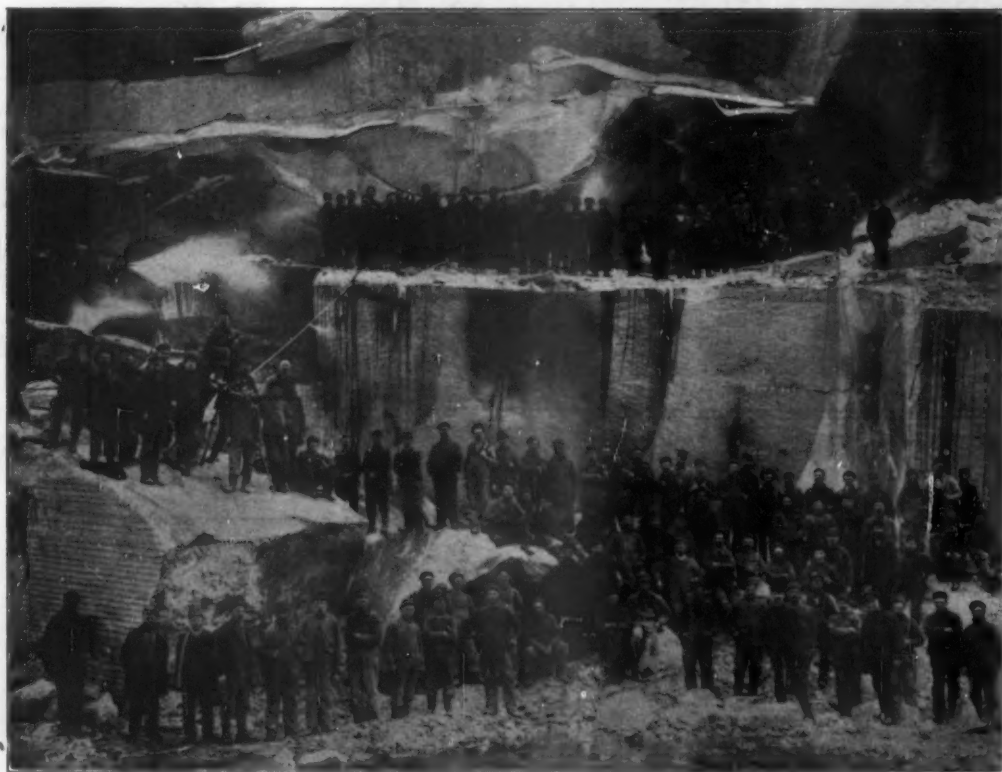
**DUGAN'S COMPOSITION STONE**

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Merit wins every time and that accounts for the phenomenal success of our "Junior" Surfer. There is no way by which you can better insure a profit making condition of affairs in your plant than by the installation of one of these machines. Write today and let us tell you about them.

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Order One for Your Show Room.

No. 228, die 2-8x1-0x2-8, two faces polished, face traced base, 3-4x1-8x1-2, four sides rock pitched to a fine wash 10-cut. Our price, best Dark Barre for the die, Gray American for the bottom base, f. o. b. car at quarries, for the sum of \$46.50. The accompanying cut is a sample of our mirror photos; one hundred to select from at 50 cents each or the entire hundred for \$40. If you wish to increase your sales on monuments, call for our mirror photos. Most of the manufacturers in Barre and Quincy are using them. Address

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Rough stock of any dimensions  
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**White Granite** FOR  
MONUMENTAL WORK,  
CURBING AND PAVING.

Write For Quotations.

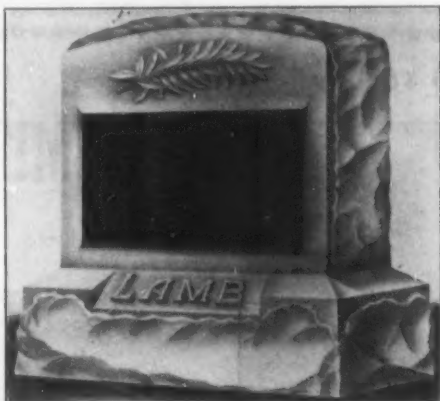
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**MEMORIAL METAL FLORAL WREATHS.**Made in perfect and absolutely unfading colors. They  
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1215 Filbert Street, PHILADELPHIA.**Granite City Polishing Machine.**Power Hoist with ball bearing,  
Rope Buffers and Scroll Wheels,  
Air Compressors and Auto-  
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WRITE FOR WANTS.**W. A. LANE,**  
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cutting tools is of  
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Tools shipped all over the world. Write for prices.**BARRE GRANITE?**Well, that is just what we manu-  
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us a sketch of the work you need and  
we will gladly furnish you estimates.**J. O. BILODEAU Monumental Work.**  
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WRITE FOR IT.**J. W. FINERTY, :: Milford, N. H.**We have no Superiors in the  
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TRY US.

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Let us get you out one of these.

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We have just issued a revised Price List of chisels and tools for stone-workers and if you have not already received a copy, write for same today.

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We do monumental work in all kinds of New England Granites to satisfy our customers. We can give you a square deal on **NATURAL Quincy Granite.**

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WE CAN FURNISH

**Light and Dark Medium  
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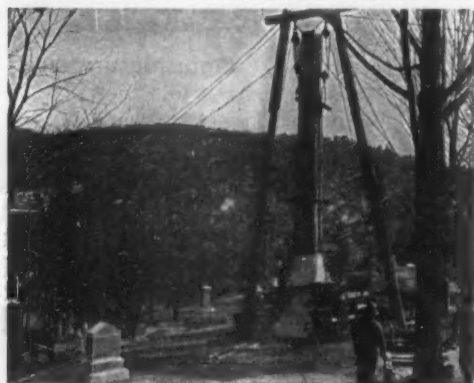
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Containing Ratings of the Granite, Stone, Marble, Quarries, Monumental Dealers and Workers throughout the United States and Canada. Special facilities for reporting everywhere. Legal correspondents under contract in towns and cities in the United States and Canada. Subscription Price, \$25.00 per year. Including Reports. References furnished if desired. Address REED O. OXNARD, Secretary and Manager, 1011-13 Pemberton Building, Pemberton Square, BOSTON, MASSACHUSETTS.

We have a granite here that is giving as good satisfaction as Barre for hammered and rock faced work, and is cheaper. Let us quote you prices on your monumental work

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RIGGING TO SET 50 TONS  
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Manufacturer and  
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EVERY TYPE OF

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Rustic work a specialty.  
Prices right.  
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## Cement Brick Machines

From \$25.00 and up  
Capacity 1200 to 48,000 per day.

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Capacity 1 1/2 to 15 yds. per hour.  
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Any Dimensions  
Furnished to Limit  
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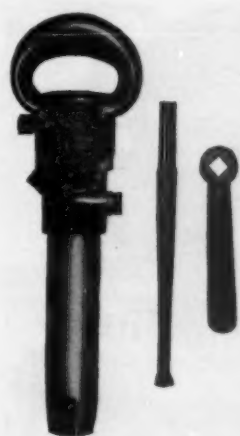


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It is easy for every manufacturer to say that his products are the best, but can they prove it? We can, if given the opportunity.

The DALLETT Plug Drill as put out at the present time by us we guarantee to give you satisfaction in every respect.

We win and hold the confidence of our customers which we could not do if we were not putting out a superior tool.

Write us for particulars.

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A Sample of Work  
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ALL CLASSES OF

**Monumental Work  
in Granite.**

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ONE of the biggest  
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United States, built,  
rigged and set up by

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Does business from  
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**THE WELLS, LAMSON & CO., DARK QUARRY, Graniteville, Vt.**

I have been in the company known as Wells, Lamson & Co. for 21 years and had the personal supervision of this quarry during that period.



Rough stock furnished to the limit of transportation.

Stock squared and polished for the trade.

Only five quarries in Barre producing dark granite and mine is second to none.



Among the important contracts for which the Granite was supplied from my quarry, are the following:

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Polished Columns and Carved Capitals for Mausoleum, erected by John L. Flood, at San Francisco, Cal.

Monument erected to Hon. A. B. Martin, at Lynn, Mass. One of the finest private monuments in New England.

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**CARBORUNDUM.**

Grans, rubstones, wheels, and all other carborundum products. Carborundum is the most rapid cutting abrasive known.

**DAVID MOWAT'S SCOTCH STEEL SHOT.**

The secret in making steel shot is the tempering. If it is too soft it will flatten and go to mud, if it is too hard it will roll under the wheels and saws, but if it is tempered right it will cut from the start to the finish. We guarantee Mowat's Scotch Steel Shot to be just right.

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It will buff marble and granite in one-half the time of any other putty powder, is twice the bulk of other putty powders on the market, and requires no more in bulk, consequently goes twice as far.

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We put up an outfit, including everything necessary to polish granite by hand, and give full instructions how to use the material. Price \$8.00 f. o. b. cars Montpelier.

**REVERSIBLE FELT BUFFERS**

Are far superior to all other buffers and save two-thirds the time.

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SPECIALTY:

BEST CLASS

Monumental Work  
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UP-TO-DATE CUTTING PLANT.

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**CHICKAMAUGA QUARRIES**

Quarries: Chickamauga Station, W. & A. R. R.

WE FURNISH Engine Beds, Copping, Sills, Ashlar, Building, Dimension, Bridge, and Crushed Blue Limestone, also Screenings and Dust.

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A fine grained, dark blue, green granite, which takes a polish of great depth and brilliancy

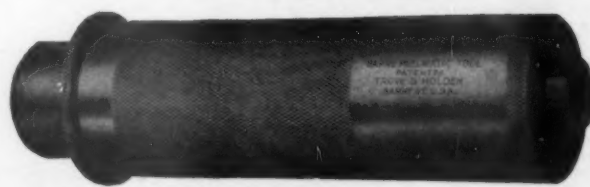
**A Granite With a Contrast**

Nothing like it anywhere else in the world. We quarry for MONUMENTAL TRADE ONLY, and can ship promptly :: ::

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HEATH SPRINGS :: :: SOUTH CAROLINA

*Barre Pneumatic Tools*  
FOR GRANITE-MARBLE AND STONE



Made in four sizes to meet all requirements for carving, lettering, tracing and finishing any kind of stone. Your plant is not up-to-date without them.

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# "Perfect" Stop-Cocks



Our new stop-cocks are well termed the "perfect" cock. They are a spring tension cock, always tight, and requiring no adjustment.

To any one who has had experience with the old type of short-lived, leaky cocks this new one will come as a blessing. Besides a leaky cock is expensive.

For 3/4 in. hose only 60c each, \$6.00 per dozen.

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## WAUSAU RED GRANITE

Famous for its color and brilliancy. We have the finest stock in this district, either in the rough or finished.

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Monuments, Statuary and Cemetery Work

From Light and Dark Quincy  
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ENGLAND GRANITE. The  
trade supplied with Rough  
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WORKS: Quincy Adams Station, QUINCY, MASS.



## Oklahoma Red Granite

None Superior for Monumental Purposes

**WE SELL ROUGH STOCK ONLY**

Our quarry is equipped with up-to-date Pneumatic Machinery, and we can save YOU money and give your wants PROMPT ATTENTION. Send for sample of the handsomest dark red granite in the world and get our prices.

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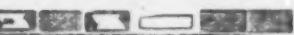
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Quarry, Stone Sawmill, Crushing Plant and Office:

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CARTHAGE, MO.

THE 1000 CAR LOADS

of fine hammered

## WOODBURY GRANITE

Used on the exterior of this structure,



THE NEW STATE CAPITOL BUILDING, Harrisburg, Pa.

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All kinds of New England Granite are at our command, but Quincy is our specialty.

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WRITE FOR PRICE LIST.

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Manufacturer and Wholesale Dealer in

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Monumental and Building Work of all Kinds,  
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Trains from track 21, South Station, Boston, at 16 minutes past each hour of the day.

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We cut all of the New England Granites. Up-to-date machinery, first-class workmen and an honest job for the customer.

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MANUFACTURERS  
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Is there not a satisfaction in knowing that you have absolutely the best tools that can be bought? Yes, there is, and there is profit in it too. We are unquestionably manufacturing the most economical and long lived tools ever offered to the trade, and you can insure the success of your new plant, in no more certain way than by installing the "DALLETT."

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For Feeding Sand, Steel or Shot for

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Saws faster, uses less sand and water and requires less power and repairs than any other. Runs only 20 revolutions per minute. Pays for itself in six months. Used by the Best and Largest mills. Send for full description and prices.

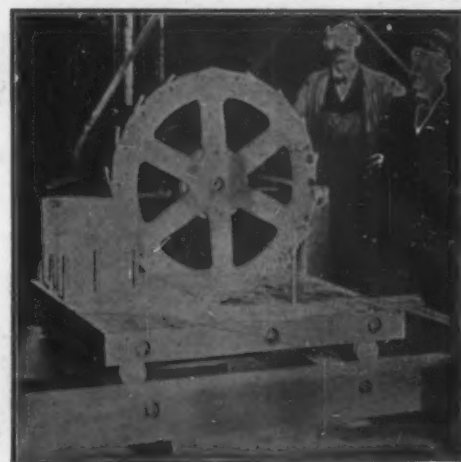
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Cuts soft stone at a saving of many dollars per day. Just patented and proven conclusively to be a success. Very simple and durable and price very reasonable. For particulars, write to

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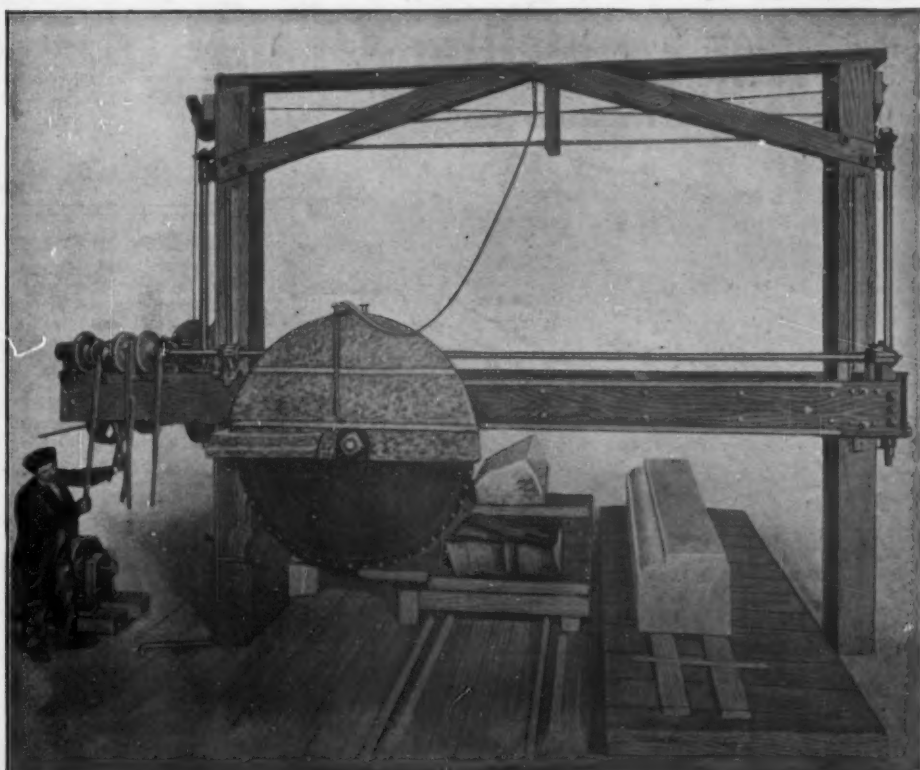
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MANUFACTURER OF

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For cutting all kinds of Building Stone,  
Marble, Slate, Tile, etc. Automatic  
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Machinery.

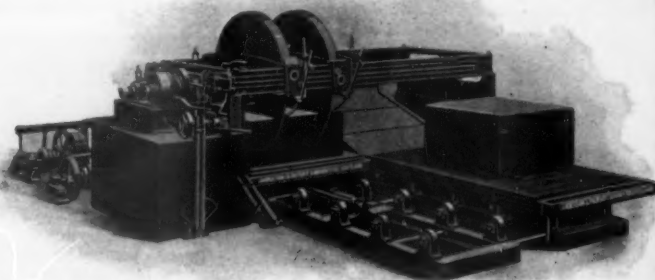


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# DIAMOND SAWS

FOR  
**LIMESTONE  
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**GEO. ANDERSON & CO.** 420 Ogden St.,  
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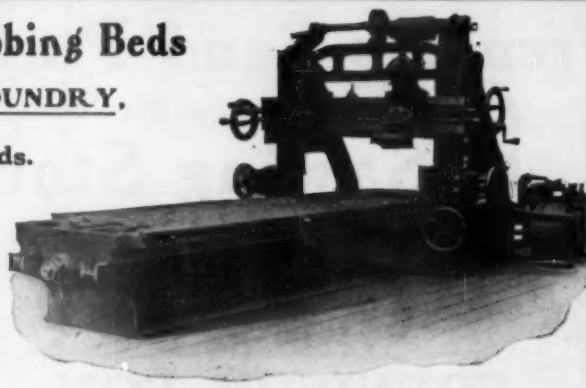
## Stone Planers and Rubbing Beds

BUILT BY THE  
**BIRMINGHAM IRON FOUNDRY,**  
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Regular Planers with Four Heads.  
Open Side Planers.  
Twin Planers,  
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The Swing Upright can  
be let down, thus mak-  
ing it an open side planer  
for wide stone.



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# Happiness and Prosperity Assured

TO ALL USERS OF THE

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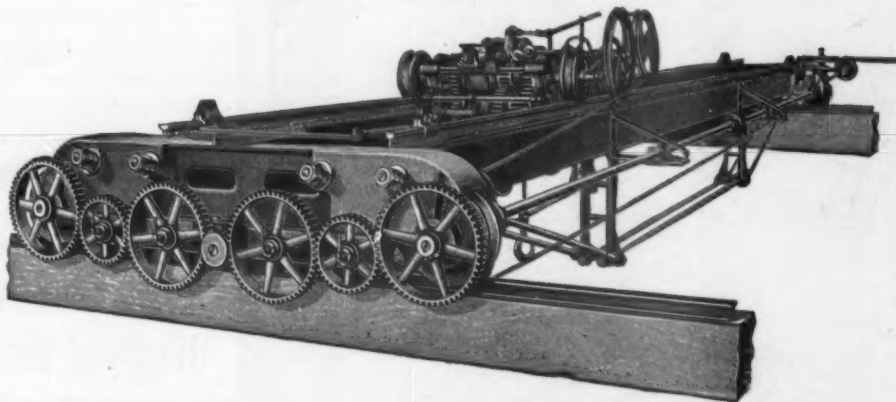
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### THE POWER TRAVELING CRANE

has become a recognized  
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cutting plant.

### EVERYBODY CAN AFFORD ONE

at the price we charge,  
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A SIGNAL MAN ISN'T NEEDED  
with our crane. Opera-  
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### THE PECULIAR METHOD OF ROPE

Driving employed is  
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saver of power.

It is a Time Saver. It Handles Stone without Injury. It Facilitates the Execution of Orders.  
It Brings the Expense Account DOWN and the Profits UP. 10, 20 and 40 Tons  
Capacity. Fully Described in our Catalogue. We are Prepared  
to Furnish Plans for the Most Modern Stone Plants  
and the Complete Equipment.

**LANE MANUFACTURING COMPANY, Montpelier, Vt.**

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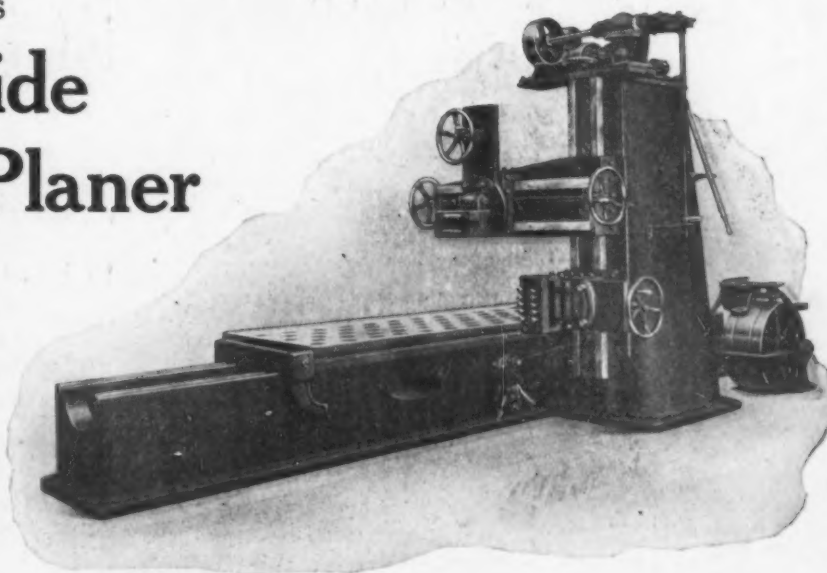


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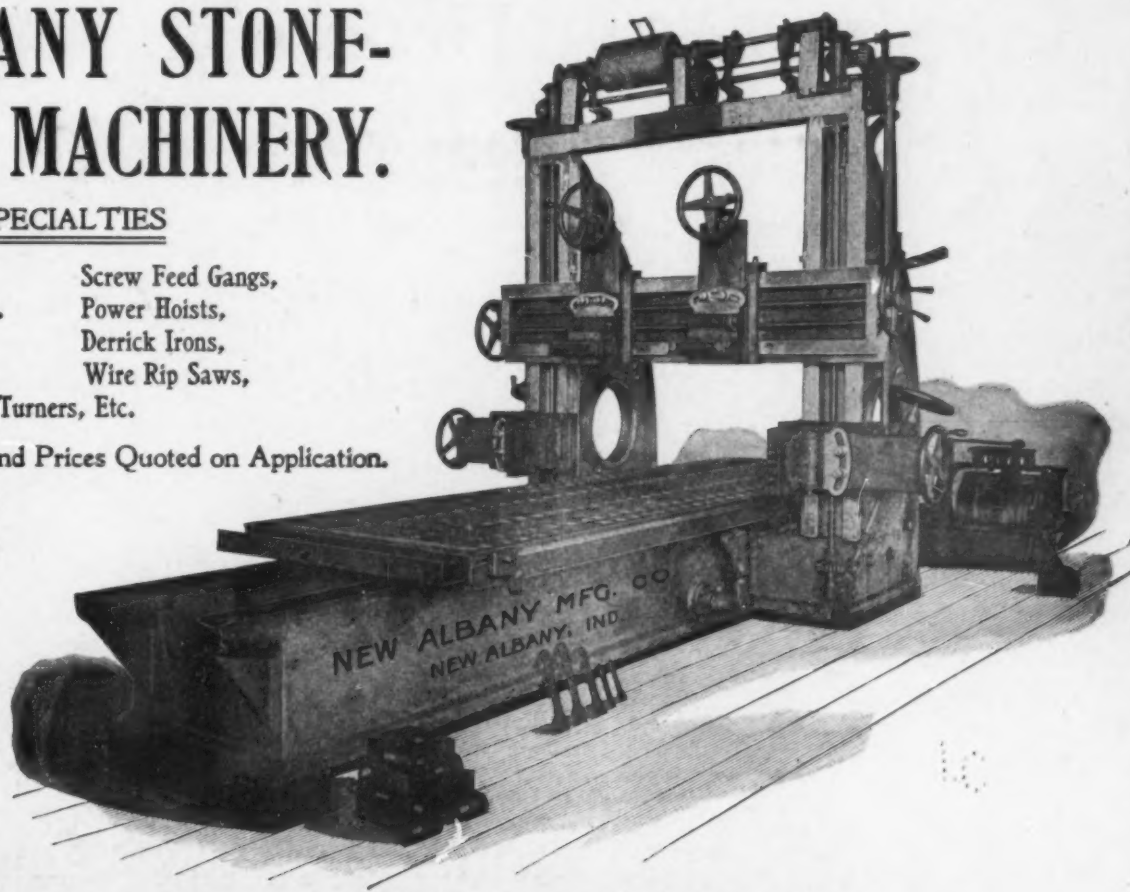
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